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CONTENTS

	PAGE
Editorial Notes	293
Co-ordination of African Transport	295
Railway Wagon Supply	295
U.S.A. Railways as Coal Carriers	296
British Transport Commission Traffic Receipts	296
Gold Coast Railway	297
Branch-Line Problems	297
The Work of Henry Maudslay	297
Letters to the Editor	298
The Scrap Heap	300
Overseas Railway Affairs	301
Increasing the Clearance of an Overbridge	303
Wagon Shops at Ashford Works—3	305
Locating Attachment for Multi-Spindle Chucking Automatics	309
Personal	311
Accident Report, Epsom, Southern Region	315

INDEX

An index to the ninety-first volume of THE RAILWAY GAZETTE *covering the issues from July 1 to December 30, 1949, has been prepared, and is now available free of charge on application to the publisher.*

Colonial Railway Standards Conference

ON Monday, March 27, and daily until March 31, a Colonial Railway Standards Conference is to be held in London under the auspices of the Colonal Office and the Crown Agents for the Colonies. Representatives of all the African colonial territories will attend, as well as observers from Ceylon and Malaya. The objective of the Conference will be to exchange views as to the possibility of effecting a much greater degree of standardisation in all railway equipment, with the exception of track and gauge. These last two matters will not be discussed. It should be emphasised that the Conference will be exploratory and that it will not make binding decisions; it will, however, provide an opportunity for the pooling of ideas and for a considered discussion on many points on which it is felt that a good deal of unanimity can be found. The observations and recommendations of the Conference will be sent to the territories concerned later. For a considerable time, it has been felt that there is wide scope for a greater degree of standardisation in railway equipment supplied to many of the Colonial territories. In many cases the adoption of standard forms would lead not only to greater economy of production and consequent lower cost to the railway administration; it would also have a considerable beneficial effect in the expedition of delivery. From the viewpoint of the manufacturers of equipment for colonial railways, it is known that there would be a warm welcome for any progress which could be made towards greater standardisation in the requirements of the railways. Experience during the recent war went some way towards breaking down individual preferences and at the same time has lent momentum to the movement towards standardisation.

The Late Mr. Raymond Carpmael

RAYMOND CARPMAEL, whose death at the age of 74 we record elsewhere, will long be remembered as a kindly and courteous man, as well as one who has made his mark in his chosen profession of civil engineering. His early training covered a wider scope than with many railway civil engineers, and took him as far afield as Germany and Mexico to supervise engineering works. This gave him that broad outlook which was an asset in dealing with a variety of situations and men. He joined the railway service at Paddington in 1900, and in the next year assisted on the Fishguard Harbour Works. Further work as a resident engineer, followed by divisional appointments at Shrewsbury, Gloucester, and Neath, well equipped him for headquarters, and for his succession to the position of Chief Engineer of the G.W.R. in 1929. He was a keen advocate of education, especially among the lower grades of the railway service, and he took a particular interest in the work of the Permanent Way Institution, which he served as President in 1930-32, and again in 1938. He made official railway visits to France, Germany, Spain, and the U.S.A., and in 1938, while in India as a Member of the Pacific Locomotive Committee, was instrumental in founding the first section of the P.W.I. in that country.

The Inter-Allied Railway Club

THE Foyer Interallié des Chemins de fer (the Inter-Allied Railway Club) was opened in Paris on October 4, 1948. It was inspired largely by the British Transportation Club in London, and since its establishment it has had a large measure of success. Its membership exceeds 830 persons and during 1949 more than 6,000 meals were served on the premises at 11, Rue de Milan, Paris, close to the St. Lazare Station. In addition, its premises have been loaned for a number of official receptions, conferences, and so forth, and the club itself has given several cocktail parties which have been popular and well attended. During 1950, the management of the club is planning to enhance its character as a centre for those connected with or actively interested in railways. In April next, a series of conferences and a ball are to be given at the Hôtel de l'Union Internationale des Chemins de fer, and plans are also in being to expand the club by incorporating two adjoining premises.

Wages Disputes Continue

THERE would appear to be little hope of a satisfactory settlement in the near future of the several wages disputes which have caused much discontent among railwaymen and engineering employees for many months. On March 10, the London Transport Executive rejected the N.U.R. claim for a minimum wage of £5, following the line taken by the other Executives in this connection, and on the previous day, the Confederation of Shipbuilding & Engineering Unions, though by no means unanimous on this point, voted in favour of a ballot being taken to decide whether to strike or appeal to the National Arbitration Tribunal, to secure a wage increase of £1 a week. The case of the railway employees is being discussed by the negotiating committee of the N.U.R. this week and the result of the ballot by the engineers will be known on July 13. Neither is there any unanimity in T.U.C. circles

on the question of maintaining the wage freeze policy. Demands will increase as the cost-of-living index rises and sooner or later the case of workers in the lower pay categories will have to be settled.

Overseas Railway Traffics

THERE was a £1,075,000 decline in Canadian Pacific gross earnings during the first four weeks of the current financial year, and, though working expenses fell by £527,000, the net deficit was £548,000 greater than for the equivalent period of 1949. Gross earnings for January, 1950, were £8,181,000, and working expenses amounted to £8,829,000, with a resultant £648,000 deficit in net earnings. Victorian Railways receipts for November, 1949, showed advances in earnings of railways, electric street tramways, and road motors, and brought a total advance by £416,841 to £1,877,684. Due to flood damage, traffic on the Costa Rica Railway was stopped between December 6 and January 15, and in consequence Costa Rica receipts were down by c 250,228, at c 763,908, during January, and on the aggregate are now c 5,919,770, as compared with c 7,087,755 for the financial year 1948-49. After a £3,523 advance to £36,038 during December, Dorada traffics for the twelve months amounted to £356,825 and were £18,402 better than for 1948.

Victorian Railways Officers Re-Styled

IN his report on the Victorian Railways, which was summarised in our issue of August 5, 1949, Mr. John Elliot, Chief Regional Officer, London Midland Region, British Railways, recommended that the post of General Passenger & Freight Agent of the Victorian Railways and the branch under him "be given an entirely new position in the railway hierarchy and the first thing to do is jettison his cumbersome and unattractive title and rename him Chief Commercial Manager." He further recommended that this officer's salary and status should be of the same order as that of the General Superintendent of Transportation, who should thereupon take the title of Chief Operating Manager, so as to define clearly the differences in the functions of these two heads of branches. On January 1, the Victorian Railways, acting on these recommendations, gave the General Superintendent of Transportation the title of Chief Traffic Manager, and the General Passenger & Freight Agent that of Chief Commercial Manager. The former Transportation Branch became the Traffic Branch and the former Traffic Branch was renamed the Commercial Branch.

Australian Gauge Standardisation

AN important step towards Australian gauge unification has been taken. The recommendations made by Sir Harold Clapp in his report to the Commonwealth Government in 1945 were approved by the Premiers Conference early in 1946. In that year the Commonwealth Three-States Agreement between New South Wales, Victoria and South Australia, and the Commonwealth, was drawn up. Only South Australia was prompt in ratifying this agreement, in December, 1946. Victoria did so two years later, but apparently New South Wales has not yet done so. The Commonwealth Government decided on individual agreement with States, and on October 27, 1949, the Railway Standardisation (South Australia) Bill was passed by the Commonwealth Parliament; on November 24, the South Australian legislature passed a corresponding Bill. The Commonwealth and South Australia will contribute 70 and 30 per cent., respectively, of the £24,000,000 required for conversion of all 5 ft. 3 in. and 3 ft. 6 in. gauge lines in South Australia to 4 ft. 8½ in. The Commonwealth will convert the 3 ft. 6 in. Port Augusta-Alice Springs and Birdum-Darwin sections of its north-south line to standard gauge and will construct the connecting link from Alice Springs to Birdum to that gauge. Standard-gauge through running will then be possible from Brisbane to Darwin and to Kalgoorlie *via* Broken Hill and Peterborough. If negotiations between the Commonwealth and Western Australia succeed, the 3 ft. 6 in. gauge from Kalgoorlie to Perth and Fremantle will be widened to 4 ft. 8½ in., which will then be continuous from Fremantle to Brisbane.

Film on British Locomotive Manufacture

A FILM that should do much to bring the wide range and the quality of British locomotive manufacture to the attention of persons at home and overseas has recently been produced by the Locomotive Manufacturers' Association. Entitled "The Locomotive," this coloured sound-film is primarily concerned with the construction of steam locomotives at various private builders' works, though it also includes some reference to both diesel and diesel-electric manufacture. The early part of the film contains a well chosen series of sketches showing the broad outlines of locomotive development since the time of Trevithick, and some fine cinematography portrays British-built locomotives at work overseas in India and South Africa. Indoor scenes at a number of locomotive works show several of the major phases of construction, and there are some close-up sequences of machine tools in operation. The film maintains a high standard of interest throughout and the sequences follow on sufficiently well to make a compact and coherent story.

Equipment for Canadian Railways

EVERY effort must be made by British manufacturers to capture a larger share of the dollar market, and for this reason importance attaches to the particulars recently issued by the Ministry of Supply of a variety of goods for which the C.P.R. and the C.N.R. are seeking sources of supply in this country. These goods, listed elsewhere in this issue, embrace a wide range of products, including diesel locomotives, welding equipment and machine tools, stokers for steam locomotives and power plant, together with such varied items as typewriters, glassware, fabrics, and so on. Most of the equipment needed by the Canadian railways is of different design and specification from that used in this country and in the overseas markets which British manufacturers now mainly serve, but, because of the extent of the Canadian requirements and the fact that orders are likely to be repeated, the Ministry of Supply considers that initial special tooling and other adaptation might prove well worth while. Both the above railways import large quantities of equipment each year, but, though goods worth $80 million were bought by the C.N.R. alone in 1949, until now there has been only small British participation in this trade.

Leeds to Nottingham Competitive Service

THE imminent closing of Dukeries Junction Station (mentioned in our February 17 issue) on the old Great Northern and Lancashire Derbyshire & East Coast Railways recalls a curious competitive train service of July, 1927, when the London & North Eastern Railway inaugurated a through train between Leeds Central and Nottingham Victoria, *via* Tuxford North, Clipstone Junction, Mansfield Central, and Kirkby South Junction. The distance to Nottingham by this curious route was 84¼ miles, compared with the shortest Midland route (avoiding Sheffield) of 78¼ miles and the old G.N.R. distance of 90 miles *via* Newark. The train ran till the autumn of 1932. Leaving Leeds at 10 a.m., it reached Nottingham at 12.17, where it transferred a through carriage from Leeds to Bournemouth to the old Great Central 9.50 a.m. from York; it returned from Nottingham at 4.58 p.m., reaching Leeds at 7.10, and called in each direction at Wakefield, Doncaster, Retford, Mansfield, and Sutton-in-Ashfield. It was an example of the competition which sprang up after 1923 between the groups, and was the only real threat to the Midland monopoly of Leeds to Nottingham traffic since the disappearance in 1912 of the Sheffield and Leeds service, *via* Moorthorpe and Wakefield, run from 1903 by the G.C.R., over a distance of only 77¼ miles.

Starting Against the Signal

THE accident at Epsom on July 28, 1949, was another example of a motorman allowing his attention to become distracted by conversation, after noticing that the starting signal was at danger, and starting away on the guard's right-away being relayed to him by others. He continued to look back as two passengers jumped into his train when it was moving, and only the explosion of a detonator working with the signal recalled him to the realities of the situation. It is fortunate that the collision had no more serious results. As will be seen from our summary of Brigadier C. A. Langley's report, the signal, since moved back, was only 40 ft. from the fouling point, and the impossibility of providing any other protection to the conflicting crossing movement had led to the installation of the detonator placer. As the over-run distance has now been increased, the report makes no recommendation, but Brigadier Langley places full responsibility for the accident on the motorman, in not attending to his duty of watching the starting signal.

Co-ordination of African Transport

IN recent issues we have referred to the establishment of a Secretariat for the Central African Transport Conference, which is to meet in Johannesburg in October. Mr. W. Marshall Clark, formerly General Manager of South African Railways, has been appointed Interim Secretary-General of the Conference, and after discussions in Paris he has visited London and shortly will be returning to South Africa.

The Central African Transport Conference had its genesis in a meeting, held at the invitation of the Portuguese Government, and attended by delegations from the Governments of Belgium, France, Portugal, the Union of South Africa, and the United Kingdom, which was held in Lisbon in May last year. Details of this meeting were given in our July 1, 1949, issue. The objects of that conference were four-fold:—

(*a*) To examine the present conditions of land and water transport in the area within the scope of the Conference, comprising Angola, Basutoland, Bechuanaland Protectorate, Belgian Congo, British East Africa, French Equatorial Africa, Mozambique, Northern Rhodesia, Nyasaland, Southern Rhodesia, South West Africa, Swaziland, and the Union of South Africa.

(*b*) To exchange information on the plans of the various territories concerned in relation to railway and port construction, development of inland waterways, and extension of trunk roads serving inter-territorial functions.

(*c*) To examine the possibility of inter-relating these plans in the best interests of the territories concerned as a whole.

(*d*) To draft an agenda for a full-scale conference of Governments with technical assistance to be held in Africa at a later date; to fix an approximate date for such a conference and to decide its venue.

In addition to the official delegations from the Metropolitan countries, the United States of America sent three special observers. The conference, which covered all forms of transport except air, recommended to the Governments represented at the conference that the Governments should co-operate in the development of Central African port and transport facilities on a regional basis, and work together to that end. To carry out this policy of co-operation it was proposed that a plenary conference should be convened in Johannesburg in 1950. To that conference it was suggested that the following Governments and Administrations not directly represented at the Lisbon Conference should be invited: Southern Rhodesia, East African High Commission, High Commission Territories in South Africa, Northern Rhodesia, Nyasaland, Government General of Angola, Government General of Mozambique, the Administration of the Belgian Congo, and the Administration of French Equatorial Africa, and also that the United States of America be invited to send an observer or observers.

It has now been decided that, at the invitation of the Government of South Africa, a full conference will be held in the Union in October next. This meeting will decide such matters as the permanent establishment of the Secretariat, the location of its offices—possibly in Pretoria—and the general lines of approach towards the problem of co-ordinating Africa's transport system. Obviously the programme must be very long-term. It is probable that an endeavour will be made to effect a wide measure of standardisation of gauge and railway equipment throughout the continent as far north as the Sahara. Ultimately, no doubt, the 3 ft. 6 in. gauge will become the standard, but there are also many other details on which wide variation exists, and on which agreement will be sought between the parties by the Secretariat.

Apart from railways, port and dock installations and waterways, as well as highway communications, will form important parts of the work of the conference. It is likely that it will be decided to hold plenary sessions of the conference at regular intervals, possibly every two years, but in the meantime, the Secretariat, once established on a permanent basis, will be able to proceed with the collection of information and statistics and arrange for exchanges of views between the parties directly interested in any particular problem. Certain scientific work which it was proposed should be performed in Africa under the ægis of O.E.E.C. will also be incorporated in the functions of the conference, so as to avoid duplication of effort.

Railway Wagon Supply

THERE are ominous signs that British Railways may have difficulty in maintaining an adequate supply of wagons this year, if the volume of freight traffic reaches the 1949 level. On January 1 the total operating stock of wagons was 1,113,100. Of this book stock 93,100 wagons were set aside for repairs, leaving 1,020,000 fit for traffic as compared with 1,066,800 at the end of 1948. The Railway Executive thus began the present year with 46,800 fewer wagons available than it had a year ago.

One cause of the reduction of over 4 per cent. in the effective wagon force is the high percentage of wagons needing repair—8·3 of book stock. The Executive expected to reduce this percentage to 5·5 by the end of 1949 and has lost the use of about 30,000 wagons by its failure to reach that goal. Evidently a large proportion of the wagon stock is in a poor state. In the December period, 17,300 heavy and 268,700 light repairs were executed. The number of former railway-owned wagons in these totals far exceeded the pre-war monthly figures. Yet at the end of the year 61,900 railway-owned wagons were on the repair list, nearly 9 per cent. of the existing stock in that category. At the end of 1936-37 and -38 the railway companies had about a third of that number of wagons set aside for repairs. Their standards of maintenance cannot be matched in the circumstances prevailing today.

The second factor which has weakened the operating stock of wagons is the wholesale scrapping of old vehicles without equivalent replacements. Month after month the number of wagons broken up has been more than twice the number of new wagons put into traffic. During the December period, for example, 5,349 wagons were withdrawn from service and only 2,029 new wagons were installed. The policy of eliminating the old "cripples" is sound, but requires the provision of 45,000 new wagons a year until the whole stock is restored to a satisfactory condition.

It is understood that the Railway Executive wished to build 40,000 wagons this year, but have been authorised to build only 25,000 because the Government is bent on restricting capital investment. Such a programme is utterly inadequate. It is less than the railway companies undertook before the war. In the three years 1936-37-38 they replenished their stock by building 12,500 wagons on capital account and replacing 77,000 out of renewal funds, so that nearly 30,000 up-to-date wagons were turned into traffic on an average each year. British Railways took over private owners' wagons (with a few exceptions) and so own 60 per cent. more wagons than the companies possessed. Their stock is being worked harder because it produced in 1949 a ton-mileage which was 18 per cent.

above the 1937 level. The periodical *Transport Statistics* prove that good use was made of the available wagons, but operating efficiency cannot be secured with an unduly depleted stock in the years to come. The country cannot risk a shortage of railway wagons at a time when it is striving to increase industrial production. On the facts there is a crystal-clear case for considering the railway wagon position afresh and it is desirable that an authoritative statement on future policy should be issued for the information of the public.

U.S.A. Railways as Coal Carriers

IN 1947 the U.S.A. railways carried over 520 million tons of coal in 9,090,000 wagons. The output of bituminous coal reached an all-time record in that year, but decreased in 1948, when the number of coal wagons loaded was 8,690,000. Last year was full of trouble in the coal mining industry. Most of the mines worked only three days a week for long periods, and irregular stoppages also occurred in some districts. The loss of working hours curtailed the production of bituminous coal to 27 per cent. below 1948, the lowest level in ten years. The output of anthracite coal remained steady, but ordinarily represents only a sixth of the wagon loadings, which fell to 6,217,000, or 28 per cent. below 1948 and 31 per cent. below 1947. In busy years the collieries load 20 per cent. of the total number of wagons carrying freight traffic over the U.S.A. lines. Last year this percentage dropped to 17.

The parlous state of the U.S.A. coal trade in 1949 is shown by the reduction of more than a third in the tonnage railed to Canada. The actual figure was 18,000,000 tons compared with 27,400,000 in 1948. The quantity of coal shipped at Lake Erie Docks declined in much the same ratio from 54,700,000 tons in 1948 to 37,000,000. Export coal moved overseas fell off more steeply from 19,800,000 tons in 1948 to 11,800,000.

Worse was to come in the early weeks of 1950. The bituminous coal miners staged a strike which was not settled until March 6. During the cessation of work, the Interstate Commerce Commission ordered the railways to conserve stocks of coal by halving the mileage of coal-burning passenger locomotives, and cutting 25 per cent. off the mileage of freight coal-burners. These orders were not drastic, because two-thirds of the passenger mileage and nearly half the freight mileage is worked by diesel-electric or oil-burning locomotives. Indeed the orders gave the railway companies an opportunity to suspend many passenger trains which were run at a loss.

During the first six weeks of this year the miners' strike had not such a serious effect on the forwarding of either coal or general merchandise as might have been expected. The total number of wagons loaded with all classes of commodities was 3,575,000, or 15 per cent. fewer than the 1949 loadings of 4,227,000, and 22 per cent. fewer than the 1948 loadings of 4,618,000. It so happened that in one or two weeks this year the despatches of grain, ore, and forestry products were higher than in 1949. A large quantity of coal also continued to move from stock or from mines which remained open; in the week ended February 4, for example, 105,000 wagons were loaded with coal, as compared with 155,000 in the same week of 1949.

Clearly the American strike was not a root-and-branch affair like the 1926 withdrawal of labour from the British coal pits. The dispute was sufficiently widespread, however, to cause President Truman to declare that a state of national emergency existed. In supporting his view that a crisis had arisen, Colonel J. Monroe Johnson, Chairman of the Interstate Commerce Commission, admitted that air, road, and water carriers were dependent on rail transport for the fuel used in performing their public services, so that the railways were of vital importance to the national security at all times. This pronouncement might be gratifying to the Association of American Railroads, but left its member companies to bear the cost of carrying on during the emergency.

The coal roads were, naturally, hit hardest by the unsettled condition of the mining industry, and may have difficulty in maintaining full efficiency, if their coal carryings do not recover quickly from the recent slump. The rise of the Pennsylvania Railroad operating ratio to 85 per cent. in 1949 was a danger signal.

British Transport Commission Traffic Receipts

THE downward tendency of railway revenue continued during the second four weeks of the current year. Statistics issued by the British Transport Commission showed a total decline in revenue from railway operations during the four weeks to February 26, of £562,000. For the eight weeks of the year to date, the decline, as compared with the similar period of 1949, is now £827,000 in railway revenue. Passenger receipts in the recent weeks declined by £385,000 and are now £732,000 less than they were at this time last year. There was a decline of £4,000 in passenger train parcels, but so far this year this traffic is higher by £96,000 than a year ago. Merchandise and livestock has again fallen sharply, this time by £245,000, which brings the total decline this year to £430,000. Mineral traffic also has declined £59,000, which makes it £39,000 less than a year ago. Revenue from the movement of coal and coke is the only good feature of the returns. There is an increase in the last four weeks of £131,000, and in total this year coal and coke carryings have brought in £278,000 more than a year ago.

	Four weeks to February 26		Incr. or decr.	Aggregate to February 26		Incr. or decr.
	1950	1949		1950	1949	
	£000	£000	£000	£000	£000	£000
British Railways—						
Passengers	6,149	6,534	— 385	12,227	12,959	— 732
Parcels, etc., by passenger train	2,114	2,118	— 4	4,154	4,058	+ 96
Merchandise & livestock	6,423	6,668	— 245	12,556	12,986	— 430
Minerals	2,326	2,385	— 59	4,685	4,724	— 39
Coal & coke	5,635	5,504	+ 131	11,042	10,764	+ 278
	22,647	23,209	— 562	44,664	45,491	— 827
Road Passenger Transport, Provincial and Scottish—						
Buses, coaches, & trolleybuses	2,174	2,241	— 67	4,454	4,495	— 41
London Transport—						
Railways	1,089	1,096	— 7	2,208	2,225	— 17
Buses & coaches	2,247	2,264	— 17	4,488	4,518	— 30
Trolleybuses & trams	801	814	— 13	1,601	1,624	— 23
	4,137	4,174	— 37	8,297	8,367	— 70
Inland Waterways—						
Tolls	51	55	— 4	105	109	— 4
Freight charges, etc.	64	67	— 3	127	133	— 6
	115	122	— 7	232	242	— 10
Total	29,073	29,746	— 673	57,647	58,595	— 948

As will be seen from the table above, practically all sections of the British Transport Commission's traffics are sharing in the decline. So far this year, in eight weeks the gross traffic receipts for the Commission are down £948,000 as compared with 1949, and the total fall in the more recent four weeks is £673,000. The table below indicates clearly the downward trend in traffics.

PERCENTAGE INCREASE (OR DECREASE) ON 1949

	4 weeks to Jan. 29	4 weeks to Feb. 26	8 weeks
British Railways :—			
Passengers	—5·4	—5·8	—5·6
Parcels	+5·0	—	+2·3
Merchandise	—2·9	—3·6	—3·3
Minerals	—0·8	—2·4	—0·8
Coal and coke	+2·7	+2·3	+2·5
Total	—1·1	—2·4	—1·8
Road Passenger Transport	+1·3	—2·9	—0·9
London Transport :—			
Railways	—0·8	—0·6	—0·7
Buses & coaches	—0·5	—0·7	—0·6
Trolleys & trams	—1·2	—1·5	—1·4
Total	—0·7	—0·8	—0·8
Aggregate, including Inland Waterways	—0·9	—2·2	—1·6

Gold Coast Railway

THE appearance only recently of the report for the year ended March 31, 1948, of the Gold Coast Railway & Takoradi Harbour, of which Mr. W. H. Salkield is General Manager, is due to printing difficulties. The period covered was unusually difficult; it included labour trouble on the Gold Coast, and a coal shortage due to coal strikes in Nigeria. Although tonnages handled much exceeded those before the war, at no time during the year could the railway accept all traffic offering; this applied particularly to export timber, for which there is an increasing demand. Passenger traffic was nearly double that of ten years before. A shortage of locomotives and rolling stock persisted through the year. The following are some of the principal results:—

	1946–47	1947–48
Railway	Thousands	
Goods tonnage conveyed	1,639	1,424
Passenger journeys	6,800	6,338
	£ thousands	
Goods receipts	1,307	1,167
Passenger receipts	434	408
Gross receipts	1,864	1,691
Operating expenditure	1,213	1,430
Takoradi Harbour		
Revenue	370	325
Expenditure	107	132

Rates and fares were substantially the same as before the war; but with rising costs and a reserve fund insufficient for the development programme, a new tariff was prepared for introduction in March, 1949. Developments during the year included extensive Africanisation of senior posts, with training of selected Africans in Britain; the merging of the Railway Electrical with the Government Electrical Department; and comprehensive forward planning, which comprised new berths, marshalling yard, and locomotive running shed at Takoradi Harbour.

Investigations were being made as to the desirability of doubling the line between Takoradi Junction and Tarkwa. This section of the line was worked almost to capacity and any substantial increase in tonnage handled caused very serious delays to trains. Many of the main passenger and goods stations were due for rebuilding in the near future so that they might be capable of handling greater tonnage of goods traffic and more passengers. The timings of all passenger and goods trains were being examined and re-designed to meet more adequately the needs of the fare- and freight-paying public.

Branch-Line Problems

WITH the integration of rail and road transport there will undoubtedly arise a need for further organisational changes, and one can visualise the establishment in the future of area organisations under transport officers responsible for all forms of traffic. Mr. E. W. Arkle, Commercial Superintendent of the North Eastern Region, British Railways, touched on this subject in a paper on branch-line problems, presented to the York Railway Lecture & Debating Society recently, when he suggested that the day might not be so far off when, instead of stationmasters at some of the branch-line junctions, there might be traffic masters responsible equally for both passenger and freight rail and road transport.

The problem of the branch line was no new one, said Mr. Arkle, as something like 1,500 miles of such lines had been closed to passenger traffic on the four main lines between the wars, and the position had now been reached where ordinary fares and monthly returns were unable to attract business in the face of the much lower fares quoted by the buses; hence, the introduction of the winter cheap ticket, which, broadly speaking, was comparable with the bus fares and had been successful in bringing back large numbers of passengers to rail and in producing an actual increase in revenue. There must, however, obviously be limits to fare reductions at the present time, in view of the general overhaul of fares due to take place under the Transport Act, and in particular it was useless to cut fares unless an actual increase in revenue could be obtained, which in itself usually involved at the least a 30-per cent. addition to passengers carried.

On certain lines the greater convenience of the buses meant that no amount of reduction in price would induce people to travel by rail, and, indeed, there were parts of the country where, if the whole population travelled by train each day, the resulting revenue could not possibly cover the branch-line costs. It was equally true to say, however, that there were cases where the railways served the population even of rural districts better than the roads, and had a reasonable chance of maintaining their business by a judicious adjustment of fares to the public.

Instances were given of the increased cost of such items as coal, steel, uniforms, salaries, and so on, which resulted in rural branch lines with three passenger trains and one freight train each way daily, costing nearly twice as much to work as the receipts accruing, even after making allowance for all contributory factors. On the passenger side an attempt had been made to compare actual costs per seat-mile of trains and buses and a general conclusion appeared likely that rail costs could only be brought down to a level competitive with road in the case of a six-coach train which in itself was too big a unit for regular use on many country branches. In the case of freight revenue much of it could be safeguarded by ensuring alternative services operated by Road Haulage Executive or Railway Executive vehicles and by careful adjustment of the facilities available at stations on neighbouring lines. Coal and minerals were apt to prove the most difficult traffics to cater for under such conditions.

The Work of Henry Maudslay

WITH increasing specialisation in engineering, it is unlikely that such figures will again arise as that of Henry Maudslay (1771-1831) whose work covered many spheres. Probably his greatest permanent contribution to engineering was his pioneer activity with machine tools of quality and precision. The once-famous engineering firm which he founded in London in 1797, preserved his name throughout the 19th century, but the business of Maudslay, Sons & Field was closed in 1900, and the school of engineers trained in his tradition has become widely dispersed. The Maudslay Society was founded in 1942 as an association of apprentices and employees of the firm, and, soon after its foundation, the members of the society decided to establish a scholarship for the benefit of young mechanical engineers.

The first Maudslay scholarship of £100 was awarded on December 16, 1949, and, to mark the establishment of the scholarship, the Committee of the society asked Mr. J. Foster Petree to prepare an historical booklet. This has now been published* by the society, and is a masterly piece of work. Although much of the information about Henry Maudslay himself is to be found in other places, additional matter has been revealed by subsequent research, and this booklet is a noteworthy contribution to engineering history. Incidentally, the proceeds from the sale will augment the funds of the Maudslay scholarship, which it is hoped to award at least annually.

As a firm of general engineers, Maudslay, Sons & Field undertook a much greater variety of work than is commonly appreciated, and activities in the railway sphere included some interesting installations. For example, the railway work included the hauling engines for the Euston incline of the London & Birmingham Railway; goods locomotives (to Bury's design) for the same railway; and the Minories hauling engines for the rope-operated London & Blackwall Railway. The firm also supplied all the air exhausting pumps and engines for the Croydon Atmospheric Railway, and some of those for I. K. Brunel's South Devon Railway. Another interesting job was Sir Marc Brunel's first shield for the construction of the Thames Tunnel, which is now used by the East London Railway. The contract for this was placed in 1925, as also was that for a 30-h.p. pumping engine and boiler for the same undertaking. In more recent years, the fame of the firm rests chiefly on its marine engineering activities, which lasted for 85 years.

* *Henry Maudslay, 1771-1831: and Maudslay, Sons & Field, Limited.* Compiled by J. Foster Petree, M.I.Mech.E. The Maudslay Society, Lynton Works, Bedford. Price 5s.; 5s. 4d. including postage

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

Timetable Alterations in "Bradshaw"

March 4

SIR,—The recent correspondence on timetable alterations recalls the fact that in 1902 the railway companies agreed that information as to intended timetable alterations should be forwarded to the publishers of *Bradshaw* so as to be in their hands not later than the 15th of the month preceding that in which the alterations were to take effect. It was hoped that it might then be possible for *Bradshaw's Monthly Guide* to be issued to the public a day or two before the changes were to take effect.

This, in greater detail, is set out at p. 58 in Mr. Royde Smith's "History of Bradshaw," published in 1939. Might British Railways consider the arrangement of 1902 as a good precedent to be followed?

Yours faithfully,

REGINALD B. FELLOWS

32, Hallowell Road, Northwood

Suburban Electric Services

February 26

SIR,—The announcement that, due to road competition, services on the Southport-Crossens line are to be curtailed might seem to presage a black future for British Railways. Here we have an electrified line, operated with some of the most comfortable suburban rolling stock in the country, and though the single fares are high, the day return rate of 7d. is competitive with the bus fare. However, a glance at the timetable will, I think, show the reason for the lack of traffic. The Sunday trains (which are to be discontinued) left Southport at 8.20, 9.50, 12.10, 2.10, 3.30, 5.5 and so on; the service both on weekdays and Sundays being neither frequent nor regular. The Lancashire & Yorkshire ran a 20-30 min. service every day on this route, and even in 1939 services were frequent though departure times varied somewhat.

In contrast to the poor showing at Southport, the Southern Electric continues to thrive—though without the advantages of all modern rolling stock and bargain-rate day return fares—in the main because it provides a frequent service at regular intervals, without which the benefits of suburban electrification cannot be realised. The result is that we see here an electrified line going the same melancholy way as the much-criticised local steam passenger services.

Yours faithfully,

J. N. FAULKNER

53, Westfield Road, Surbiton

Passenger Service on the West London Line

February 20

SIR,—Considerable comment has appeared in recent issues on the mounting losses of revenue on British Railways. This is not a problem to be solved by one sweeping brainwave, but it occurs to me that there are instances where the Railway Executive is allowing good revenue to slip away by not showing a little elementary enterprise.

Rail transport in London is, generally speaking, good so long as one travels from the suburbs to the centre. Travel "cross-country" in the suburbs is bad. It is surprising that where facilities exist to alleviate this black spot in suburban travel, little or nothing is being done to collect the waiting revenue.

I consider a glaring example the West London and West London Extension lines from Clapham Junction to Willesden Junction, closed to passengers for the past ten years. Even the two termini of this line, carrying thousands of railway travellers daily, should be enough to make the authorities think. No satisfactory alternative road transport route exists between these two points, unless a 55-min. trolleybus journey is considered satisfactory.

Leaving Clapham Junction with its great interchange of passengers, we come to Battersea, whose main claim is that the station stands in a heavily built-up area. Next comes Chelsea & Fulham Station, situated outside the Chelsea football ground. I remember in pre-war days a dozen special trains leaving Clapham Junction at 5-min. intervals, every one with eight or more people standing in each compartment going to the Saturday match. Specials were also run from Willesden and other points to unload at Chelsea. As many people go to Stamford Bridge today, but not so conveniently, and not by rail.

West Brompton Station is immediately outside the Earls Court exhibition building and barely 200 yd. from the Empress Hall. How many thousands go to the nation-wide attractions held in these arenas? The next station is Kensington Olympia with its private entrance to an arena which has an almost continuous cycle of great attractions for the public. It stands centrally in a business area, and now a block of Government offices is rising within sight of its platforms.

Uxbridge Road is again a busy centre, and the next station, St. Quintin Park, can claim the distinction of being the nearest rail point to the White City Stadium, which is sufficient recommendation, and so on to Willesden Junction with its variety of routes.

I speak with a knowledge of this route, which I used daily in the middle 1930s, and from my experience it was well patronised. My weekly season ticket for the whole route was 3s. 3d., or 3¼d. per journey—no wonder people used it! I am well aware that as passenger services were understandably suspended early in the war, intermediate stations are in various stages of dilapidation, but I am convinced that this line would show a handsome profit for the necessary outlay on repairs. All that would then be needed is an imaginative passenger service.

Yours faithfully,

S. J. H. DYSON

33, Chelwood Gardens, Kew Gardens

1948 Locomotive Exchanges

February 12

SIR,—With regard to the correspondence initiated by Mr. A. J. Maxwell in your issue of December 23, 1949, I would refer those interested to the article on British Locomotive Practice & Performance in the March-April, 1949, issue of your contemporary, *The Railway Magazine*. They will there find Mr. Maxwell convicted of the "twisting" of which he accuses others.

His statement that "they are the heaviest engines on coal . . . that ever ran on our railways" is incorrect. For example, he should refer to details of the 1910 North British-L.N.W.R. locomotive exchanges.

I agree that they are liable to slip (as, indeed, all the Pacifics are) and compare unfavourably on starting with former G.W.R. types. That is due to the necessity for keeping down the weight on the coupled wheels (63 tons, as opposed to 67½ on the "King"), but they are not as bad as your correspondent indicates, made the best start from Grantham of all competitors, as an instance, and certainly are not prone to slipping while in motion on steep gradients.

Mr. Maxwell mentions with pride gains of 22 min. between Newton Abbot and London, but omits the fact that before the war this train was due at Paddington 30 min. earlier with the same locomotive power. Likewise, in connection with the 4½-hr. timing from London to Plymouth with a load much in excess of the rostered tonnage (now limited to 375 tons as opposed to 525 from Paddington to Westbury and 450 thence to Taunton or Exeter on an appreciably quicker pre-war schedule) he gives no details at all. "No S.R. engine would have done so well!" So boo! he almost adds. Before accepting that, any competent student of locomotive performance would expect a detailed and accurate log.

I agree that the fuel consumption of the Bulleid Pacifics

is high, but at least they were unsporting enough to be the best timekeepers and that is a fact. The sooner British Railways realise that punctuality is one of their greatest assets and once more achieve their pre-war level, the better for them and us.

Do those who tilt at the big engine policy realise how profoundly the indifferent fuel often supplied has affected the performance of almost all unmodified pre-war 4-6-0 and 4-4-0 types, former G.W.R. types most of all? The Southern has largely overcome this serious problem and I can testify how great an improvement in locomotive performance has been effected on that Region. It would have been much more constructive if your correspondents had criticised the all too leisurely schedules of some of the West of England trains, the "Devon Belle" and "Atlantic Coast Express" in particular. I know that numbers avoid the former "because it takes too long." Substantial acceleration is possible and would seem desirable except perhaps on Summer Saturdays.

Mr. Franklin, in your issue of January 13 last, "imagines" that the Bulleid Pacifics would be unable to tackle the Anglo-Scottish services. Such an assumption is unwarranted until there is actual experimental proof of their alleged inability.

Yours faithfully,

J. L. FLUKER

The Isolation Hospital, Plymouth

Uniform Fare for London

March 6

SIR,—I was very interested to note that the British Transport Commission in its suggested fares scheme for the London area has produced a plan similar in many ways to the one I suggested in a letter you published in your issue of July 29 last.

In the hope that they may catch the Commission's eye I would like to make one or two more suggestions concerning the equalisation of fares in London and eventually in the whole country.

One is that season tickets at the usual rail rates should be introduced on road vehicles. An obvious corollary to this suggestion is that the availability of road-rail seasons should be considerably extended, and I would even suggest that season tickets should be made available between any two points in the London Transport area, the particular mode or modes of transport to be used being indicated on the tickets.

Finally I would suggest that the time is now opportune for the introduction of three different types of season tickets, valid for five, six and seven days per week respectively. So long as a standard style of ticket was used by London Transport and British Railways alike it would be a simple matter to use three distinct colours of ticket to indicate the varying availability.

Yours faithfully,

L. R. JONES

44, Ivyhouse Road, Dagenham

Wagon Turn-Round

February 20

SIR,—I read Mr. E. R. B. Roberts's letter in your issue of February 3 with regret and annoyance. With what right, I wonder, does he damn the "old directors" for repelling the request for larger wagons? It is true that in the main the directors of the late railway companies had no practical experience in operating the lines and their traffics, but most sensible people will agree with the comments made in your editorial columns at the time of nationalisation that the boards of directors were in many cases all the better for that—they brought experienced, unbiased, business brains to bear on any project submitted to them by the Departmental Chiefs, and it was up to the latter to substantiate their case. Is Mr. Roberts trying to tell us that that was all wrong, and that a stationmaster was a sufficiently "properly experienced traffic officer" to know better how to run the affairs of a large main-line railway undertaking?

Unfortunately, I missed the letter in your December 16 issue from "Traffic Apprentice," so I cannot say whether he deserved Mr. Roberts's abuse; but, judging by Mr. Roberts's remarks, I doubt it. I form that opinion from his second and third paragraphs.

Despite Mr. Roberts's assertion, I believe that most people (including the directors and "Traffic Apprentice") are aware that private sidings and their accessories must conform to the standard gauges, and it is true, as he says, that 80-ton locomotives actually run about such sidings. What Mr. Roberts seems to forget is that those engines do not run over wagon tipplers which are perfectly legitimate private siding accessories. It is accessories such as these to which, I presume, "Traffic Appentice" refers when he claims that many works are incapable of taking 40-, 50- and 60-ton wagons without spending considerable sums in adaptation.

Surely there is nothing vague in that, and Mr. Roberts cannot want concrete examples of works with wagon tipplers having a weight limit of about 34 tons? If he does, many of us can give him plenty. If 40-ton or more wagons were adopted, these tipplers would have to be scrapped and new grids built to cater for the self-discharging wagons. Without knowing what would be the price of coal in the large-capacity wagons it is impossible for me to hazard an opinion as to whether the structural alterations would be worth while. As regards wagon turn-round, I doubt if there would be any appreciable saving on the present practice of tippling which is both quick and efficient.

Yours faithfully,

A. J. V. MERRITT

Rockhurst, Eaglescliffe, Stockton-on-Tees

Pension Rights

February 27

SIR,—I notice in *The Daily Telegraph* of February 24, the following letter over the signature of Mr. E. M. Egan, formerly Chief Commercial Manager, North Western Railway, India and Pakistan:—

SIR,—I feel sure that all those Secretary of State for India officers of the late Indian Services who are now in receipt of pensions, or who are awaiting final settlement of their service dues, believe that there is a guarantee by the Government safeguarding them in these respects. I, too, believed this to be the case. But a recent discussion I had with an official of the Commonwealth Relations Office left me with the impression that it would be a wise precaution if the Service Associations concerned were to obtain a new and unequivocal declaration by the Government on this subject.

This official stated that it was not so certain that the pronouncements by Mr. Attlee in the United Kingdom, and Lord Mountbatten in India, did in effect constitute a guarantee in respect of pensions and other accruing rights. He was referring to the pronouncements made at the time of the constitutional changes in India. He added that these issues would be considered when the time came to draw up treaties with India and Pakistan.

Much time may elapse before these treaties are concluded, and until they are, and as things stand at present, the Commonwealth Relations Office appear to be of the opinion that there is no such guarantee.

Yours sincerely,

E. M. EGAN

Tunbridge Wells

As this is a matter affecting many of your readers and some of them may not have seen Mr. Egan's letter, they may like to read it, and when political conditions are more favourable, take suitable action individually or through their associations.

Yours faithfully,

F. S. BOND

Southborough, Kent

CANADIAN RATE INCREASE SOUGHT.—The Canadian railways have applied to the Board of Transportation Commissioners to increase their March 1 increase award by another 3·4 per cent. The March 1 award gave the railways about $26,000,000 a year, increasing existing rates by 7·4 per cent. The new application came while most of the Provinces opposing rate increases were considering an appeal to the Cabinet to reduce the first award.

THE SCRAP HEAP

Fares Please!

When I wrote to the British Transport Commission for details of the new fare proposals, all I had in reply was a request for 5s. for the information!—*From a letter to the "Sunday Express."*

The Boy Who Loves Trains

A youth of 19 was stated at Marlborough Street recently to have caused chaos on the tube and delayed thousands of passengers.

Charged on remand with refusing to leave Hyde Park Corner Station, he admitted to interfering with the mechanism of tube trains 48 times. He was again remanded.

He was said to have stated he was "very interested" in trains.—*From the "Daily Graphic."*

The Unwelcome Guest

When the *ex*-N.C.C. Mogul tank engine No. 53 was transferred from York Road (N.C.C.) to Queens Quay (B.C.D) loco shed, Belfast, it was the first engine equipped with a rocking grate to be attached to the latter depot, so arrangements were made for the fire to be dropped into an inspection pit at the station end of the shed, while the B.C.D. engines used the cinder dump situated at the opposite end. A shed labourer was detailed to clear out the inspection pit as soon as the Mogul cleaned the fire, and wheel the hot cinders to the cinder dump.

One day, the labourer had just cleared the pit of red hot cinders, and left for his can of tea, when a B.C.D. engine came to rest beside the pit. As the coast was clear, and to save going to the dump, the fireman threw the fire into the pit, the engine moving off again immediately. Some minutes later the labourer noticed the hot cinders where he had just recently cleaned out. Taking a firm stance, and pushing his cap well to the back of his head while he surveyed the smoking pit, he exclaimed in a broad and loud Ulster accent, "My God, that —— York Road —— bin here again!"—W.A.R.

Pulling Together

For over 40 years I have been a transport man, mixed up with the management of railways, buses, lorries, steamers, docks, commercial aircraft, and pipelines. I consider that nationalisation of transport was the right thing from the public's and the country's point of view, and a God-send to most of the shareholders, as the railways, while being essential to the country, are bankrupt today owing to unfair road competition. But the Transport Act was a bad one in many respects; the Bill was far too hurried.

The defects in my opinion are:—(1) The Transport Commission does not appoint the various Executives, and cannot dismiss them. The Executives are appointed by the Minister of Transport, which is wrong, and may lead to patronage. The B.T.C. should have full power to appoint them and if they are not satisfactory to sack them.

(2) The Chief Regional Officers should be autonomous in their respective Regions such as Scotland and should not have to appeal to the Railway Executive in London for nearly all important decisions. This makes for bureaucracy and over-centralisation.

(3) The Chief Regional Officers in their Regions should be able to compete with each other as to results and different methods of operation, being in close touch with the general public and traders and the staff, and thus encourage improvements and modernisation.

(4) The Chief Regional Officers should have all forms of transport under them, not only railways, but also road, air, and pipelines, so as to co-ordinate all forms of transport and give the best service to the public and industry.

(5) The Conservative manifesto on the other hand was wrong in suggesting the handing back of the road undertakings to private ownership. You cannot unscramble an omelette. It would wreck co-ordination and bankrupt the railways still further.

(6) Internal air transport should not be under a separate Ministry, but under the Minister of Transport, bearing in mind the long-term view. The present scheme results in too much centralisation in London and consequential bureaucracy. The losing of the personal touch with the staff, which is so important, is another objection.

In my opinion the nationalisation of coal, if decentralised and properly operated, was also justified. But it is a very different matter with steel, cement, and sugar, industries which are doing well, which are co-operating very well with labour and the trade unions, and which compare favourably with those in America. To nationalise these would indeed be folly when they are being well run by people who know their job.—*From a letter by Major Malcolm Speir, formerly Chief Officer for Scotland, L.M.S.R., in "The Glasgow Herald."*

"The Frankenstein Monster"

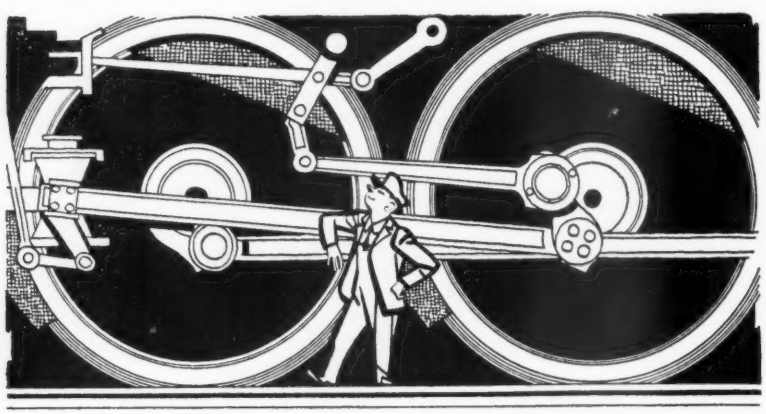
An A.P. despatch from London reports that Britain's State-owned transport system is creating a weekly deficit of $1,400,000. The British Transport Commission estimates that by the end of 1950—after three years of State ownership—rising losses will total between $140,000,000 and $168,000,000.

The Commission . . . reported the quagmire deficit before a Tribunal hearing, and appealed for "exceedingly prompt action" on its request for a 16½ per cent. hike in rail freight rates to bring in an additional $78,400,000 revenue annually.

Although this story in most cases was buried in the back pages of our daily press, we consider it one of the most important stories so far in the new year. It shows what right-thinking persons already know, namely, that State socialism, whether applied to railway transportation or any other industry, creates a financial Frankenstein monster that devours not only the personal liberties of its subjects, but also their pocketbooks.

In every phase of their economic life under State socialism, Britain is running further in the "red." In desperation, England has appealed to this country for more financial aid in the face of rising costs under socialised industry.—*A message by C. H. Pomeroy, President, National Malleable & Steel Castings Company, published in the National magazine, and quoted in the "Railway Age."*

Eccentric!



The sketch reproduced above, which heads the chapter "Our Job" in the booklet "British Railways Welcome You" referred to in our February 24 issue, shows an unusual arrangement of the Walschaerts valve gear!

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

EAST AFRICA

Nairobi-Kikuyu Realignment

The Nairobi-Kikuyu section of the realignment between Nairobi and Nakuru was opened to traffic on February 18. The most notable feature of this section of the new line is the complete abolition of all level crossings within the Nairobi city boundary, except for certain minor crossings on the Mombasa side of the station. The new section is some 4 miles shorter than the old, and includes two new stations.

With the opening of the Nairobi-Kikuyu section the realignment scheme is now almost completed. Only two short sections now remain to be finished, and it is expected that they will be opened to traffic within the next few weeks.

INDIA

Jaipur Railway Taken Over

The Jaipur State Railway is being taken over by the Government of India on April 4. There are 275 miles of metre-gauge line.

G.I.P.R. Passenger Traffic

There has been a steady increase in passenger traffic during the first eight months of the current year. A forecast for the current complete year based on the figures of this period indicates an increase of 218 per cent. over the figures of 1939-40 and of 18 per cent. compared with 1948-49.

Amendment to the Railways Act

Of considerable interest to the mercantile community is the amendment to the Indian Railways Act which was passed by the Central Assembly early in December last. The most readily appreciated result will be the abolition of risk notes. To achieve this, it has been necessary to incorporate the extent of liability of railways in the Act itself, and to provide for certain remarks regarding the condition of the consignment to be recorded on the forwarding note itself by the sender. This will entail a new form of forwarding note.

Of much greater importance is the actual modification in the position of the railway as a carrier of goods. Under the original Railways Act the position of the railway was laid down as being that of a bailee. The amendment now provides for the railway being liable, not only for misconduct, but also for negligence. The responsibility of the railway therefore has been considerably increased. The amendment has not yet come into force.

CANADA

Statement on Train Restorations

On March 6 the following statement was issued by Mr. Donald Gordon, Chairman & President, Canadian National Railways:—"When coal shortages forced the Canadian National to reduce passenger train services in Canada by 25 per cent. the management promised that the trains temporarily discontinued would be put back into operation as soon as conditions justified it. Full C.N.R. service will be restored as from midnight, March 8, when all C.N.R. trains in Canada that stopped running because of the coal shortage will go back on normal schedules. To the public who have given us their understanding support we express our thanks, and say that the C.N.R. will continue to provide, fast, reliable, up-to-date transportation. Instructions have also been given that coal consigned to commercial and other users is to be given preferential movement over our lines."

UNITED STATES

Chicago Station Plan Rejected

The 14 railways serving Chicago have informed the Mayor of Chicago that they reject plans for a south-side union station, favoured by the city. Instead, they have submitted a counter plan, based on the modernisation and extension of the existing termini (Dearborn, Grand Central, La Salle, and Central) with important street improvements.

Burlington Improvement Plan

The Chicago, Burlington & Quincy will spend $15,000,000 this year on track and maintenance equipment and $8,000,000 on 40 diesel-electric passenger, goods, and shunting locomotives. Some 216 miles of line will be relaid with new 112-lb. and 129-lb. torsion-resisting rail and 115 miles with used 90-lb. and 100-lb. rail.

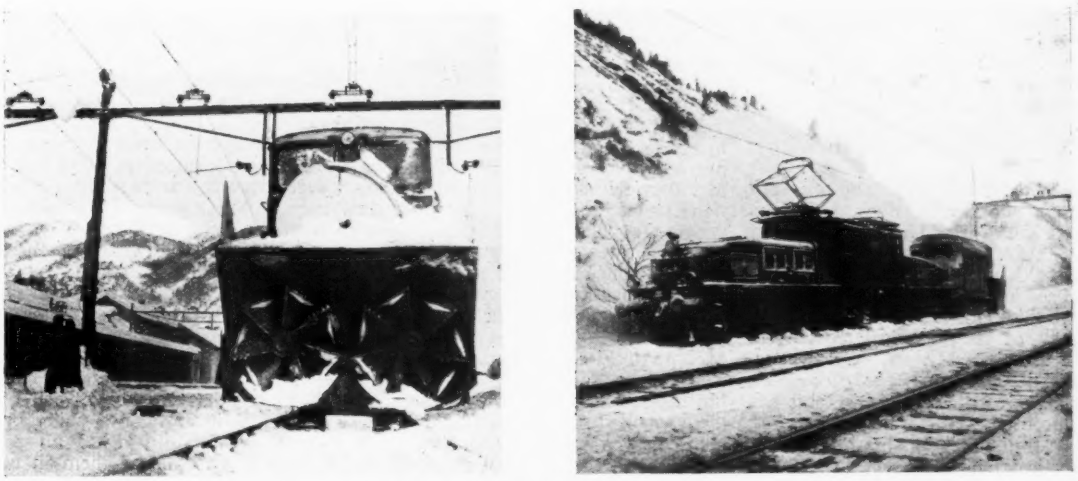
FRANCE

Railway Strike Failure

Railwaymen generally refused to comply with a call for a two-hour strike from 8 to 10 a.m. on Friday, February 17, issued by the C.G.T. Some unions were opposed to the strike and their members remained on duty.

Few train crews obeyed the order to stop trains for two hours. Main-line traffic remained almost normal, except that some trains were delayed. The Paris suburban services suffered most, particularly at St. Lazare, where a large

Snow Clearance on the Gotthard Line



Electrically-operated snowplough in action on the Gotthard line, Swiss Federal Railways

number of motormen left the electric trains. Absentees were more numerous at the depots and workshop, but nowhere were they estimated at more than 30 per cent. At the Gare du Nord there were only 20 strikers out of a total of 1,800 railwaymen. In the South-Eastern Region the situation was nearly normal. Some trains ran late in the South-Western Region and the police were called in to disperse some strikers at Limoges station.

Organisers of the strike stated that they had taken action after the failure of direct negotiations with the S.N.C.F. They called for vigorous action in support of wage claims, and in protest against penalties imposed on some strike leaders, as well as against the transport of military material for the operations in Indo-China and of the delivery of American arms to France.

BELGIUM

Door-to-Door Transport

To improve door-to-door transport facilities, the National Railways have put into service a number of new 5-*tonne* containers of the open and closed types which can be placed on flat wagons in sets of three per wagon. The full containers can be loaded, unloaded, and transhipped by one man. Specially adapted tractor-trailer vehicles convey the containers to and from the consignees. The open-type containers can be unloaded automatically when loaded with appropriate material. As the number of specially adapted wagons and trailers is still relatively small, the service is at present confined to a few stations.

Proposed New Brussels-Louvain Line

As the main line between Brussels Schaerbeek and Louvain is carrying such an increasingly heavy passenger and goods traffic plans are being prepared for a relief line. It will use an existing secondary line (Schaerbeek-Weerde-Hofstade-Muizen) which will be linked with the Malines-Hever-Louvain line by a new connection between Hofstade and Hever. There will be no level crossings, necessitating the construction of two underbridges of some importance, one of them a skew bridge of 20-metre span.

GERMANY

Locomotive Orders

Orders for 47 locomotives (25 from Henschel, Cassel, and 22 from Krupp, Essen) have been made possible by credits granted by the Länder (Provinces) in which the locomotive works named are situated and which were anxious to obtain work for the employees. More locomotive orders are likely to be placed as soon as the additional credits are voted. The credit granted by Hesse in respect of the order given to Henschel amounted to DM. 6,400,000 or approximately £545,000. Krauss-Maffei, Munich, will probably secure an order for which a credit of DM. 3,000,000 to 3,500,000 is being negotiated. The unemployment insurance trustees for the British zone are said to be considering a credit of DM. 8,000,000 (about £680,000) for an additional locomotive order to be passed to Krupps, and the Palatinate is considering a credit for a locomotive order to be placed with Lokomotivfabrik Jung, Jungenthal. These are intended to assist the locomotive industry in tiding over the most difficult part of its present crisis.

Floating Goods Wagons

It is reported that floating goods wagons with a capacity of 90 *tonnes* are planned by the Federal Railways. This type of goods wagon would enable the railways to participate in inland shipping and dispense with transhipment. The wagon body, designed as a floating craft, would be detachable from its underframe, and slide into the river or canal.

A string of floating wagons would be hauled to destination by tug. Experiments are stated to be concentrated at present on a rail-river route along the Upper Rhine, to the south of Strasbourg, with stations at which the floating wagons would be lifted on to their underframes.

Publications Received

British Electric Trains. By Howard W. A. Linecar. London: Ian Allan Limited, 282, Vauxhall Bridge Road, S.W.1. 8½ in. × 5½ in. 132 pp. Illustrated. Paper covers. Price 6s.—A second edition of this brief, but accurate, account of electric traction in Britain retains most of the data given in the first edition, though a number of modifications have been made to include recent developments in the Eastern Region. The section dealing with the Liverpool Street-Shenfield electrification, therefore, has been expanded and a short glossary of technical terms has been introduced. The author covers electric traction development from the time of Magnus Volk's railways in Brighton to the post-war electrification schemes; a separate chapter is devoted to electric locomotives.

The Electrician Blue Book, 68th edition. London: Benn Brothers Limited, Bouverie House, 154, Fleet Street, E.C.4. 1950. 9⅜ in. × 6 in. × 1¾ in. 1,004 pp. Price £2 2s.—Changes have been made in this edition which will, we think, make this old-established directory of the electrical trades still more useful. Mr. S. G. Rattee, A.M.I.E.E., Editor of *The Electrician,* has taken over the editorship, and has introduced several new features, notably further sectionalisation and an alphabetical index to every firm represented in the whole volume. By these means the user, whether looking for a particular firm or for suppliers of specific goods, is greatly assisted to the information he seeks. Moreover, the information is more comprehensive than formerly; those firms whose absence hitherto has caused unfavourable comment now appear in their proper places. A Trade Names Section has been added. In its new form, which Mr. Rattee regards as "a start" in re-arrangement, the Blue Book becomes a reference volume of decidedly improved value, while retaining those features which have established its reputation.

The Taff Vale Railway. By D. S. Barrie. Second edition. South Godstone, Surrey: The Oakwood Press, Tanglewood. 7½ in. × 5 in. 43 pp. Illustrated. Paper covers. Price 5s.—The first edition of this work appeared in February, 1939, and was reviewed in our issue of April 7, 1939. Since then, Mr. Barrie has undertaken much additional research into the history of the system, the first line of great importance in Wales, and the present edition therefore includes fresh material, particularly on the early years. There are a new map and four new illustrations. The author, who was born in Monmouthshire, has made a special study of the railways of South Wales, but he does not allow his affection for them to blind him to the fact that ultimate merger was their only possible fate. When the coal trade thrived, so did they; disunited they could hardly have come through the depression in South Wales which succeeded the brief post-war boom of the early 1920s. Nevertheless, as he says, it will be long before the rugged individuality of the Taff Vale, with its link with the Pen-y-darran Tramroad, its handiwork of Brunel, and its long and prosperous, if litigious, career, is forgotten in the valleys which were its life-blood.

Road Haulage Executive Negotiation and Consultation.—In a foreword to this illustrated booklet issued by the National Staff Council for the Road Haulage Executive, 222, Marylebone Road, London, N.W.1, Major-General G. N. Russell, Chairman of the Executive, says it has been published in an endeavour to set out briefly and clearly the organisation being set up to handle wages and conditions of service. Details of the Road Haulage Executive negotiating machinery, agreement on which was reached in July, last year, were given in our November 18, 1949, issue. The agreement provided for joint discussion at National, Divisional, and Local levels, of matters concerning the staff and the Executive, and in this booklet the machinery is simply but adequately explained.

Cathedrals and Churches of France.—A very attractive booklet on churches of France has been published by the French Ministry of Public Works, Transport & Tourism. With profuse illustrations, some of them in colour, and short but instructive text, it sets a high standard in tourist literature.

Increasing the Clearance of an Overbridge

A method adopted in Germany to obtain the necessary headroom for overhead equipment

TO save coal and to improve operation, the German railways are electrifying the main line between Nuremberg and Regensburg in Bavaria. Conditions are particularly favourable as the stations at both ends are already electrified, and there are no major intermediate stations calling for large-scale engineering works. The line carries a considerable goods traffic and has fairly heavy gradients.

Among the most important works incidental to the electrification, is the enlargement of the fixed structure loading gauge. German regulations prescribe a minimum height of 4·8 metres for steam-operated lines and 5·5 for electrified lines with overhead transmission; for some existing bridges the requirements are reduced to 5·3. Of the 19 road overbridges on the Nuremberg-Regensburg section, 14 are too low for an electrified line. All these bridges had to be lifted.

This was not difficult with the girder bridges. In short line possessions, the bridge superstructures were lifted and placed temporarily on broad-flanged I-beams inserted between the girders and built-up ends of the abutments. This permitted road traffic to be resumed without having to await the setting of the raised concrete bearing blocks poured between the ends of the abutments.

With the arched overbridges, however, the required clearance was normally available at the crown, but not at the haunches of the arch. A complete reconstruction of these bridges would have been costly. The tackling of the problem is described in *Der Eisenbahnbau*, of September, 1949. Professor Schaechterle, of Stuttgart, and a prominent firm of building contractors conceived the idea, independently and simultaneously, of gaining the required headroom by replacing the central part of the arch by a rigid horizontal frame of reinforced concrete which could be regarded as an enlarged keystone, absorbing the lateral thrust of the arch. It is admitted that the interruption of the arch line by the "alien" body of the horizontal frame is not entirely satisfactory æsthetically. It was decided, however, to experiment with one bridge, and it was found that its appearance is not so bad as to justify rejection of this economic solution, which is regarded as a "utility operation."

For the statical calculations of the frame, two extreme cases were assumed. In the first, the frame was calculated, in accordance with the theory of elasticity, as part of the arch where the resultant of forces passes outside the arch. In the second, the frame was regarded as a two-hinged frame with hinges at the centres of the supporting vault faces. The steel reinforcement was designed so as to meet whichever case was less favourable.

There was no difficulty in carrying out the work. First, the backing in the centre was removed as far as necessary and the remainder tapped by sills of reinforced concrete so as to ensure a uniform distribution of the vault thrust over the entire surface. The sills were dovetailed with the intact part of the arching. When this was done, slots

(*Continued on page* 310)

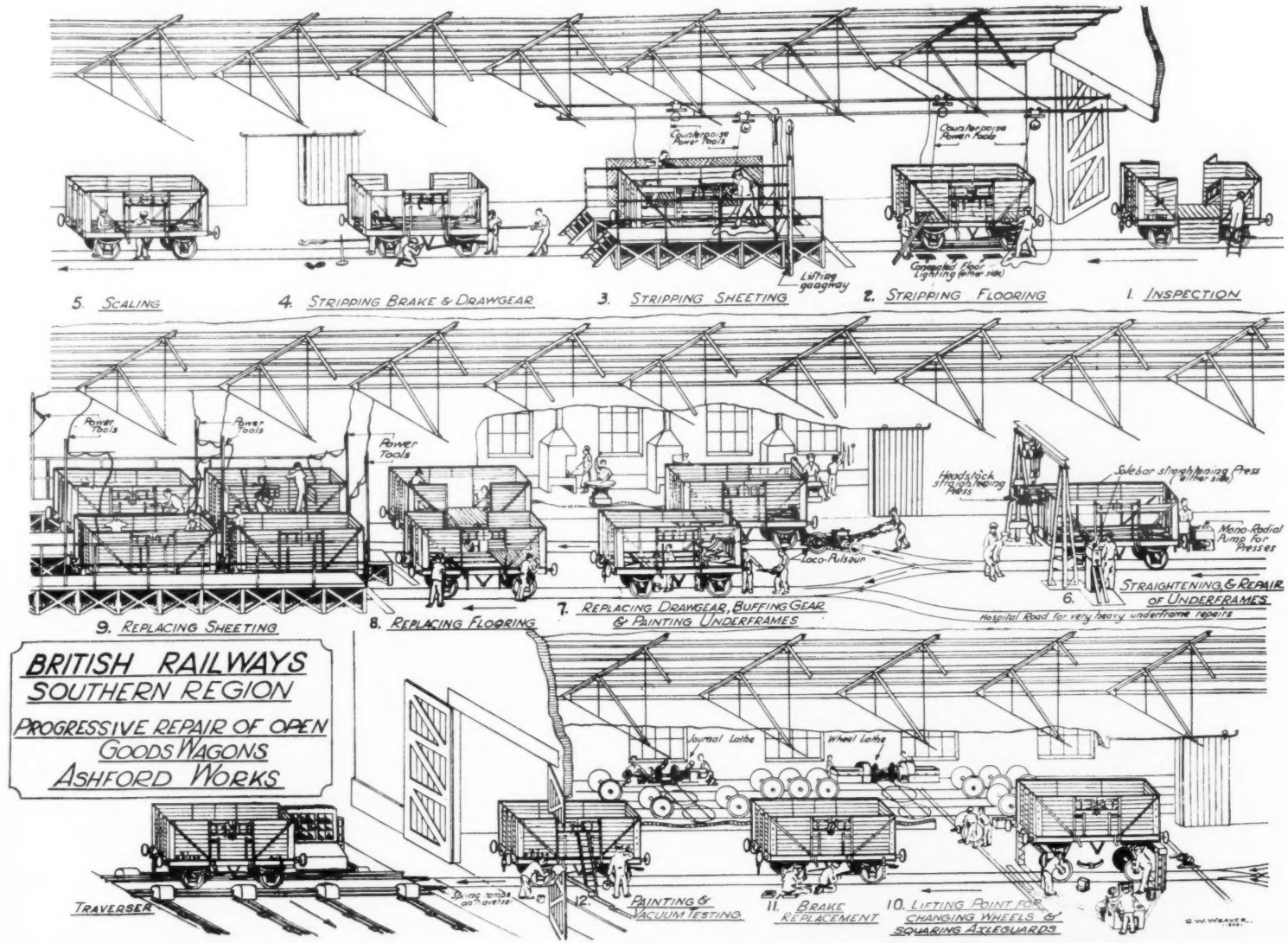
Girder bridges on Nuremberg—Regensburg line, raised to obtain clearance for electrification

Arched overbridge with inadequate clearance for overhead electrification, before reconstruction

Arch with crown replaced by a reinforced concrete frame, giving the necessary clearance

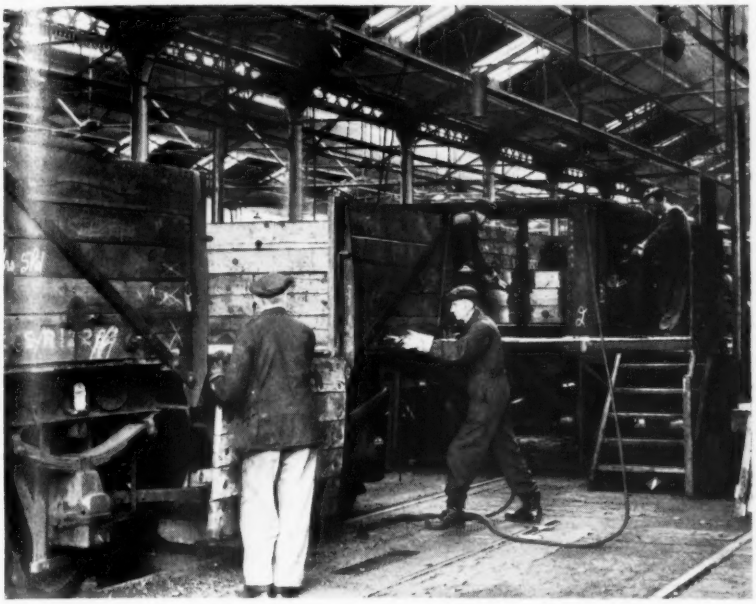
The shadow of the catenary protection masks the less æsthetic outline of the rebuilt arch

Wagon Shops at Ashford Works, Southern Region—3



Wagon Shops at Ashford Works, Southern Region—3

Heavy repairs to open wagons carried out on progressive system



Stripping of sheeting with pneumatic tools in the wagon repair shop

ABOUT 140 wagons a week are repaired at Ashford, of which approximately half receive heavy repairs. The wagon repair shop is 500 ft. long by 100 ft. wide. Half of the shop is devoted to heavy repairs to covered wagons, goods brake vans and other types, in addition to light repairs, performed non-progressively, and in the other half of the shop heavy repairs to open wagons are carried out on a progressive system, recently introduced.

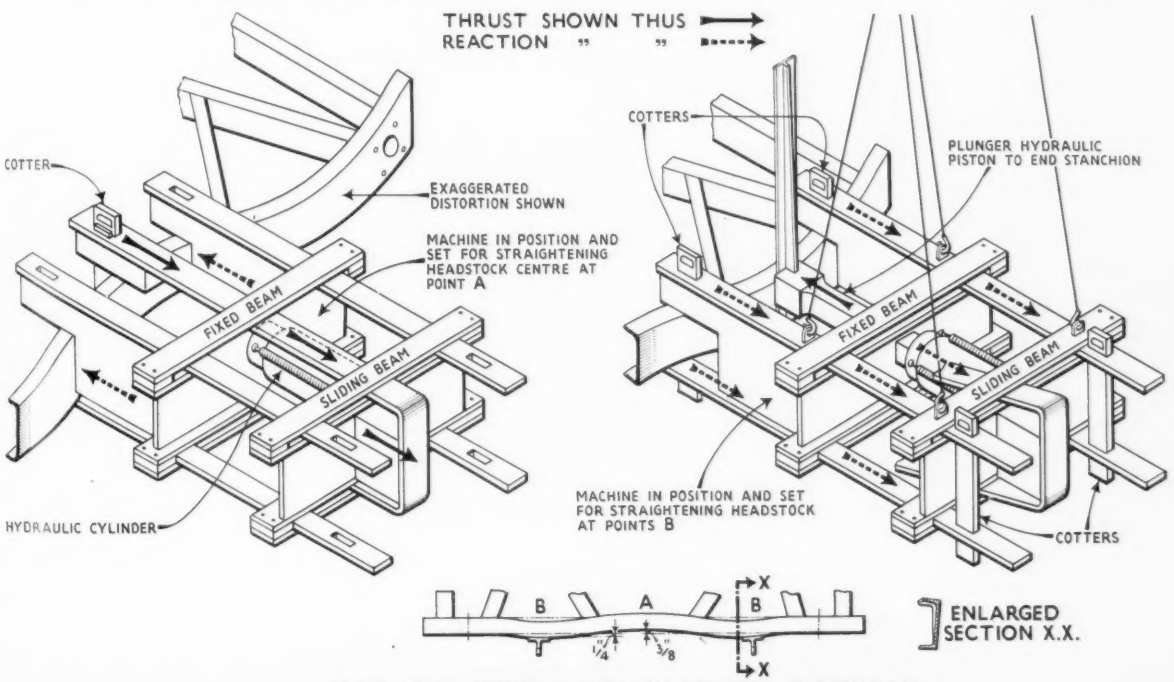
Here, as shown in the diagram on page 304, the wagons enter the shop at one end, pass through various stages of repair throughout the length of the shop, and at the other end are transferred by means of a traverser to the outgoing yard. A Locopulseur shunting machine is used for propelling the wagons in the shop and moving them from stage to stage.

Stripping Sequence

As soon as a wagon enters the shop the floor is taken up, thus exposing the underframe for inspection and repair, and defective boards in the side and end sheeting are then removed. At both of these stages nuts are undone where possible with impact wrenches; otherwise the bolts are sheared with pneumatic chisels.

Tools suspended from overhead runways and held in position by counter-balances are used for this purpose, and permanent staging and balanced gangways are provided. Brakegear is then dismantled, drawgear removed for examination and repair, and defective buffing gear stripped out, after which the wagon passes forward for the underframe to be scaled before being repaired.

It was formerly the practice for the many bent headstocks encountered, to be removed and sent to the smiths' shop for straightening, a sound headstock being fitted as replacement. Distorted



Principle of headstock straightening machine used in progressive wagon repair scheme

solebars were frequently straightened in position, but the cramping device used was laborious to operate and slow in action. With the introduction of the progressive scheme the opportunity was taken to instal plant for carrying out these operations with the distorted members cold and in position.

Solebar Straightening Device

In this equipment a hydraulic ram is mounted at the head of each of two columns set in the floor at vertically opposite points on either side of the repair line. An extension piece, attached to each ram, is swung out of position to permit entry of the wagon, and then returned to enable the load on the ram to be transferred to the solebars. Power is supplied by an Andrew Fraser mono-radial pump.

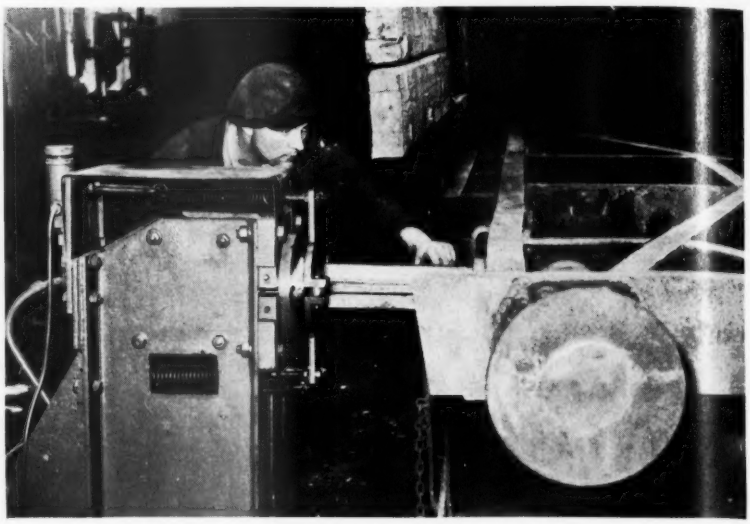
The load imposed on the solebars is transmitted through the buffer trimmers to the diagonals and thence through the headstock stays to the headstocks. The effect on this last member is, however, not usually complete, as it is in many instances found to be severely bent between the stays by drawbar load and to have become distorted due to the twisting moment imposed on the end stanchions.

A separate hydraulic cramping device, which is powered by the same pump and suspended from the gantry, is used for correcting these defects. The cramp is first engaged with the frame braced against the headstock on either side of the permanently deflected central portion; the insertion of a cotter behind the bent portion then enables the load to be applied to this, straightening it. The cramp is then moved so that the ram engages with one of the end stanchions, cotters being inserted in members behind the headstock on either side. The stanchion is thus straightened and the headstock pushed back into its correct position.

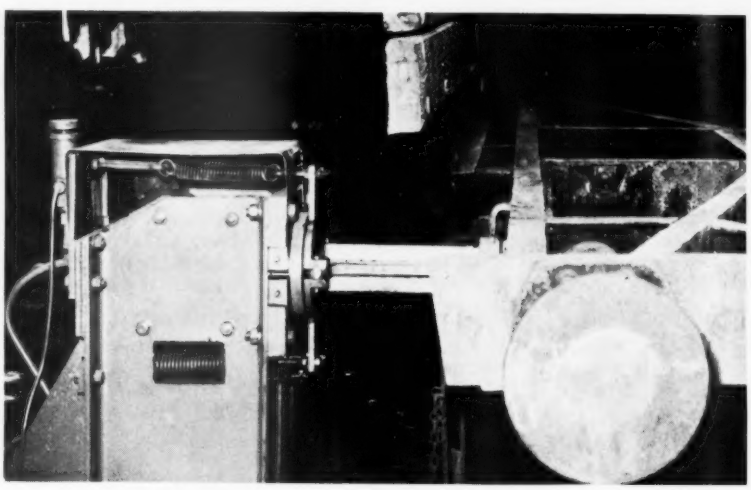
This rectification of the underframe members, which formerly involved much time, labour, and transport, is now carried out at one stage of the progressive line in a few minutes.

The wagon now passes to the next stage, where any defective details not capable of being repaired in position, are cut and replacements are fitted. Again, it was formerly the practice for worn and distorted axleguards to be removed and sent to the smiths' shop for straightening, but cramping devices have made it possible for this to be done with the axleguards cold and in position. This process is now carried out when the wagon is lifted.

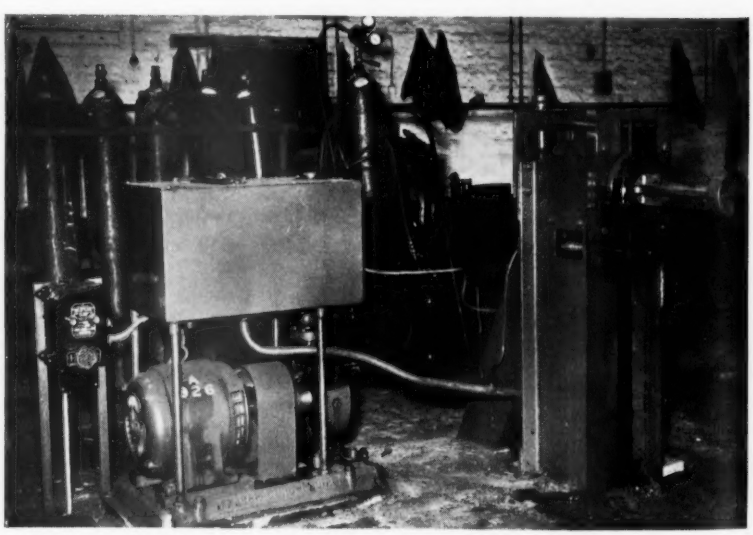
After this point the assembly line divides into two tracks and the wagons are diverted on to one or other of these, according to the amount of sheeting they require. A continuous flow of wagons involving lighter work is maintained on one track; wagons requiring heavier repairs are relegated to the other road, where they can be dealt with as time permits without interrupting the regular flow. A further set of



Underframe in position for straightening bent solebar



Straightened solebar after release of pressure



One side of solebar straightening press, and mono-radial pump

points on this latter road enables a wagon requiring exceptionally heavy underframe repairs to be run on to a "hospital road," where it can receive the necessary attention in due course, thus forming a reserve, helping to balance any fluctuation of work on the main repair line. A wagon found to be beyond repair can from this position be run out of the shop for scrapping.

At the next stage in the line buffers and drawgear are re-fitted, and the underframe is painted. Then the floor is put down and the wagon passes between permanent stagings, where pneumatic drills and electric nut runners are in position on stands with overhead leads. The tracks then converge, so that wagons from each road can be dealt with at a single lifting point.

Method of Lifting

Lifting is carried out by hydraulic power supplied by an Andrew Fraser mono-radial pump. The wagon is raised by two beams disposed transversely to the track, each end of each beam being mounted on a ram with a guide adjacent to it to provide rigidity. The rams at each end of the same beam are cross-tied with rack and pinion, but the beam at either end of the wagon can be independently controlled, so that it is possible to cant the wagon if necessary. Three beams in all are provided, two being suitably spaced for lifting 13-ton wagons and the third providing longer spacing for the 21-ton wagons.

When the beams are out of action they fit into recesses in the floor, flangeways being cut in their upper faces so that wagons may be run over them from the track on either side. As the rams approach their uppermost limit of travel, secondary beams, similar in shape to the main ones, are raised to floor level, and so enable the old wheels to be run out from under the wagon and the new wheels placed in position.

The plant is controlled from a panel adjacent to the mono-radial pump. Operation is simple, mainly involving the use of two levers only, one for the control or throttle valve and the other for a selector valve, which controls the supply of power to either one or both of the pairs of rams in action. When the plant is lifting, a ratchet and pawl mechanism is in operation, so that in the event of a sudden failure in pressure, the beams are held in position. Before lowering, the pawls are put out of gear by the movement of levers on the panel, but excessive speed during the lowering brings a centrifugal brake into action. A handbrake is provided on the panel for use in emergency, and screw-operated valves act as isolators for the beams.

The advantage of lifting gear of this type is in its elimination of cumbersome equipment, such as overhead structures, grabs, and trestles, and the resulting economy in shop space and labour.

At either end of the lifting plant narrow-gauge tracks pass into the wheel repair shop; on these run trolleys for the transport of wheels. Tyre and journal turning for the progressive and non-progressive sides of the shop are carried out on two wheel lathes and a recently installed journal lathe, manufactured by Craven Bros. (Manchester) Ltd., of which a special feature is simplicity of loading and unloading by reason of the fact that the wheels can be run on level track into position on the machine where the electrically-operated jack can handle them. The drive is through friction-rollers, which can be raised into contact with the tyres of the wheels.

After being lowered on to new wheels, the wagon passes to another stage for brake-gear to be re-fitted, and to the final stage for painting and vacuum testing, before being drawn out over the traverser.

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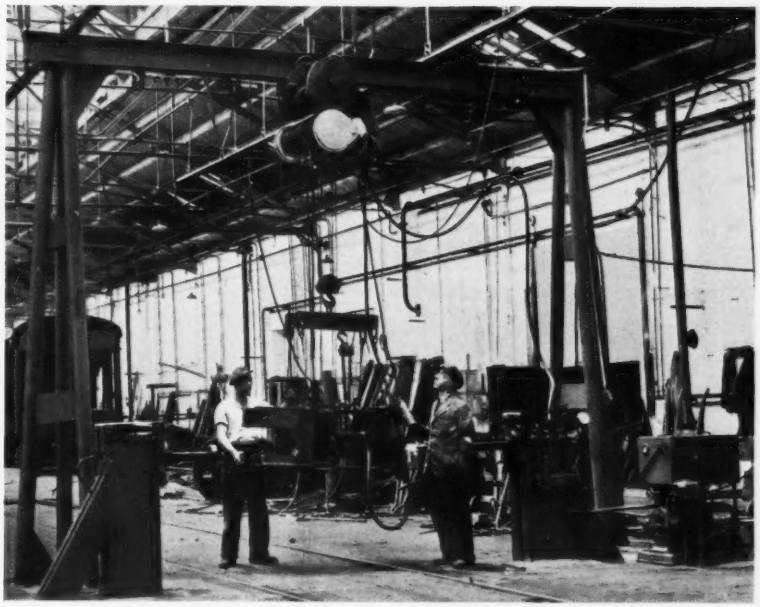
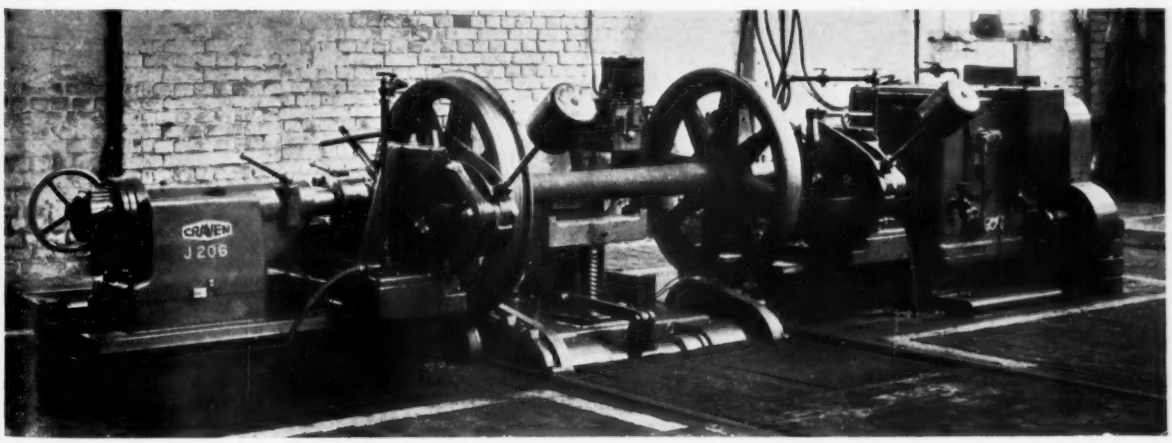


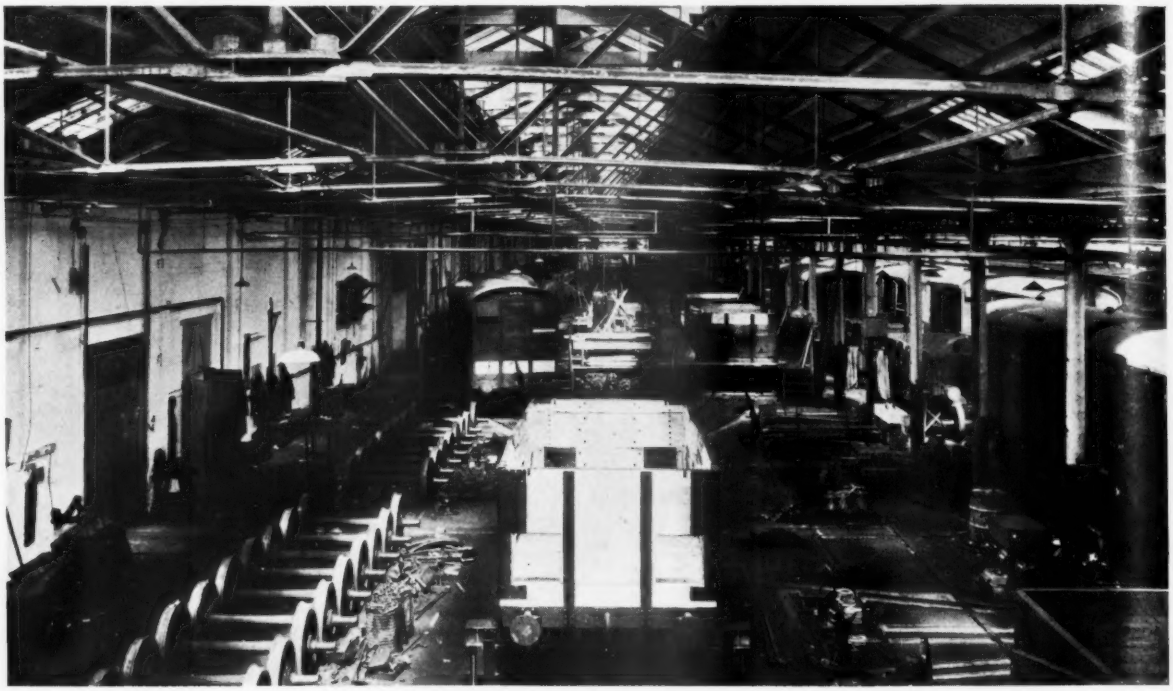
Hydraulic presses for straightening wagon underframe members



Journal lathe, with friction roller drive

Wagon Shops at Ashford Works, Southern Region—3

(See article on page 305)

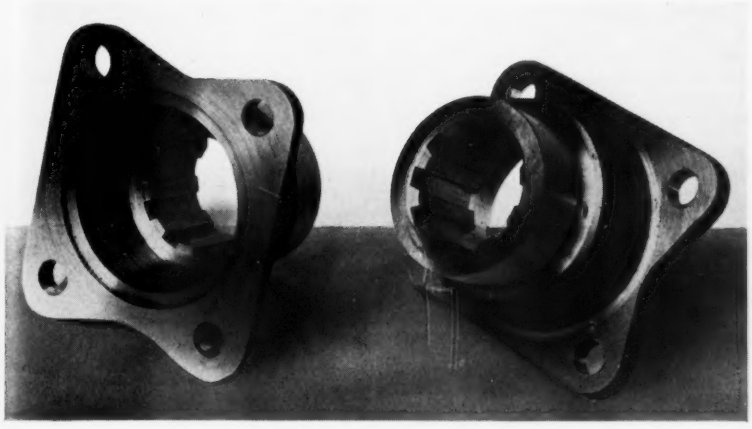


General view of progressive repair section, wagon repair shop, with lifting plant in foreground

New wheels being placed in position under wagon on lifting plant

Locating Attachment for Multi-Spindle Chucking Automatics

Device to enable free time at the loading station on a chucking automatic to be used for multiple drilling



Component produced on a chucking automatic

AN attachment has recently been developed by A. C. Wickman Limited, Coventry, for use in conjunction with multi-spindle chucking automatics, which enables an operation such as milling or drilling to be performed by an independent live attachment while the component remains stationary, and ensures that this ancillary operation is in consistently precise relationship to the form of the component.

Immediately after indexing the machine spindles, first of all the driving clutch is disengaged and the brake applied to bring the spindle to rest as for loading in the usual manner; then, a special cam on the standard cam drum releases the spindle brake, and an auxiliary slow-motion drive is engaged to rotate the spindle and bring into position a detent slot for engagement with a locating dog. This action disengages the slow-motion drive and leaves the spindle stationary in a positively locked position. The ancillary operation is then completed; after unloading and loading, the spindle clutch is re-engaged in the normal way for the commencement of the next cycle of the machine.

Design Features

At the rear of each spindle, a ring gear for the transmission of the slow-motion drive and a locating ring for the acceptance of the locating dog are bolted and dowelled to the outer member of the air cylinder, which is dowelled in position on the spindle, the engaging gear unit of the attachment being driven by a fractional-horsepower motor, mounted on the index casing of the machine; the drive is through a worm and wheel reduction gear and flexible shaft.

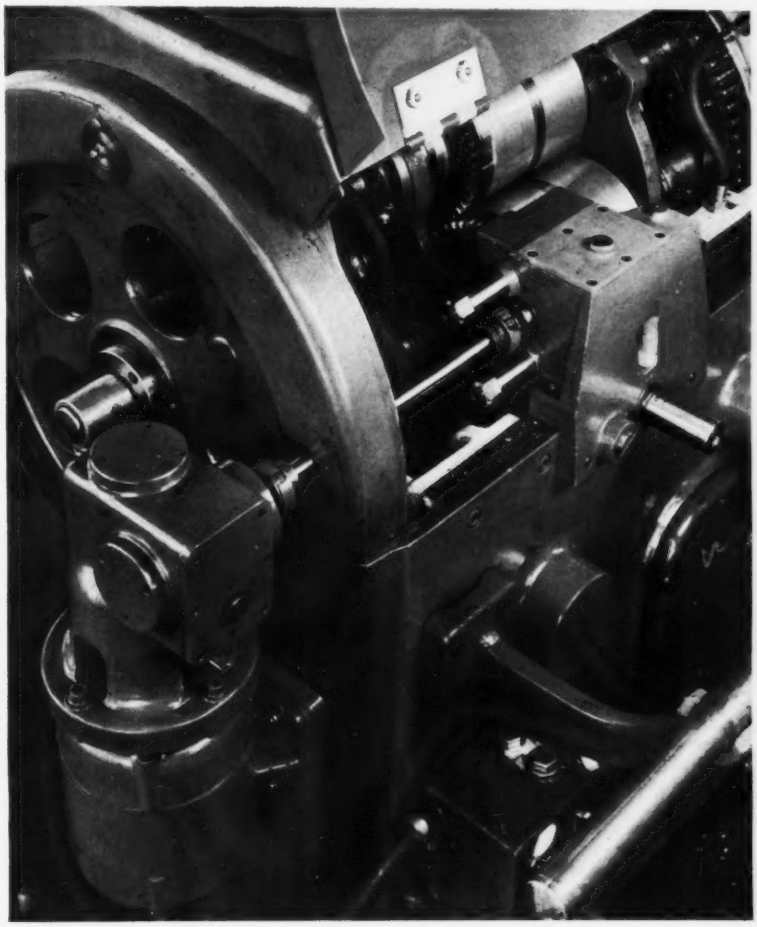
The engaging gear unit consists of an aluminium housing in which a freely mounted countershaft connects with a flexible coupling drive; intermittent drive is obtained through a sleeve carried on the countershaft and a sliding dog keyed to the countershaft, which is permitted to slide in and out.

Keyed to the sleeve is the engaging pinion arranged to slide longitudinally into mesh with the ring gear mounted on the spindle.

Mechanism Control

The action of the mechanism is controlled by a disc cam mounted on the end of the existing camshaft, carrying on each side masking segments operating two vertical spring-loaded bell-crank levers, which are located on a bracket inside the wall of the index casing.

One lever carries a locating dog, and on release by the cam the locating dog rides on the periphery of the locating ring on the spindle; the second lever is so arranged that, when released by the cam it withdraws a restraining yoke, allowing the slow-running pinion to slide longitudinally, under spring pressure, and engage the ring gear on



Driving motor and reduction gear mounted on the end of the index casing

the spindle, rotating the spindle until the locating dog engages with the detent slot in the locating ring.

This further movement of the lever carrying the locating dog actuates a lever and yoke mechanism to disengage the sliding dog from the sleeve on the countershaft, and so the drive to the engaging pinion is disconnected, leaving the spindle stationary and positively located. The engaging pinion is disengaged from the ring gear on the spindle, the locating dog is withdrawn from the detent slot in the locating ring, and the sliding dog re-engages with the sleeve on the countershaft when the two bell-crank levers are subsequently re-set by the cam on conclusion of the machine cycle and immedately before spindle indexing.

Multi-Drilling of Flange Couplings

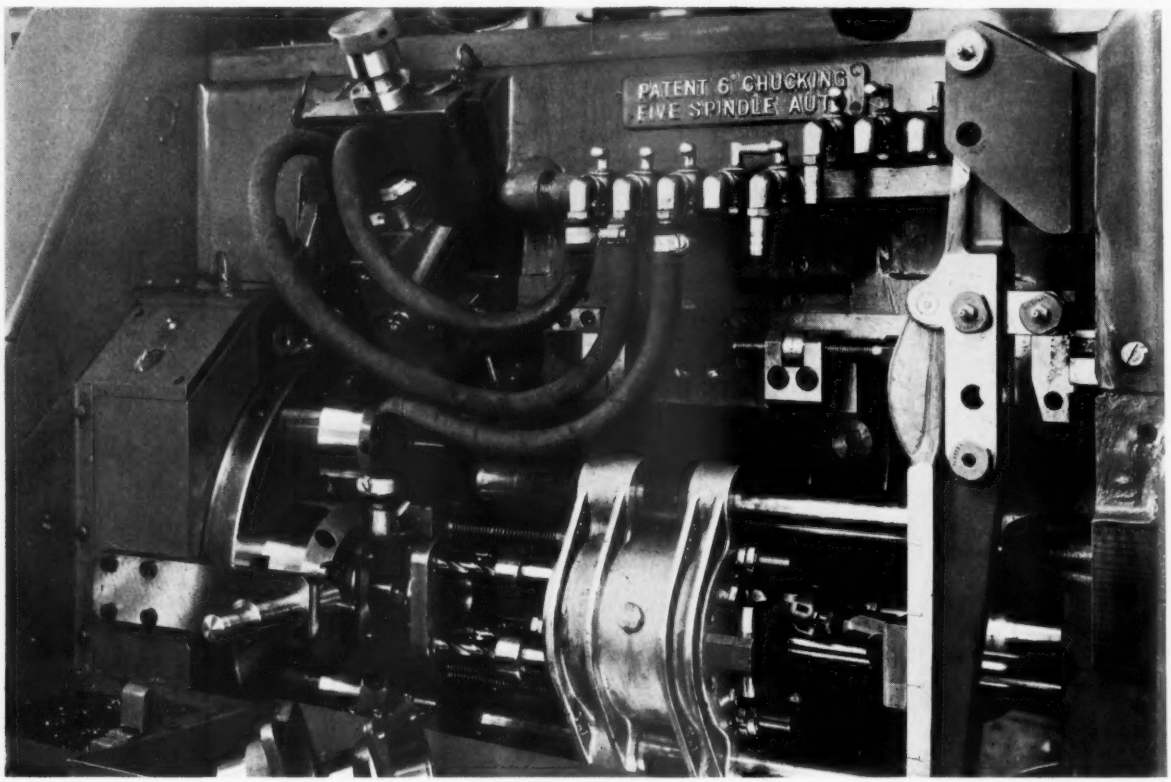
The use of the attachment on a Wickman 6-in. multi-spindle chucking automatic enables what would otherwise be free time to be used for carrying out multiple drilling operations which would normally require a subsequent operation on another machine. The first four spindle positions of the automatic are used for the boring, facing, and recessing operations on the flange couplings, the machining of the long boss, drilling and broaching, are planned to precede the automatic stage.

The fifth spindle position, which is the loading stage, occupies only part of the time available during the machine cycle; opportunity is taken therefore to drill the holes in the flanges by an independently operated four-spindle drill head having a spring-loaded guide bush-plate engaging with the spigot of the component.

The drilling attachment is mounted on guide bars on which it is free to slide; link-operated toggles on the attachment engage with the pentagon centre block to provide the feed stroke. At a predetermined point, on completion of the drilling operation, the toggles disengage and the attachment is withdrawn independent of further movement of the centre block. Since the holes require to be exactly positioned in relation to the flange, it is necessary to ensure that the work spindle is stopped in a constant position, and to achieve this a new technique has been evolved.

Each component has a mandrel forced into the bore with a slight interference fit, a single key locating in one spline to transmit torque; fitting and subsequent removal of the mandrel is carried out on a hand-operated arbor press. The rear of the mandrel is in the form of a 16-deg. taper to mate with the female taper of the adaptors fitted to the machine spindle. The mandrel is drawn back into the spindle by the air cylinder drawbar which is fitted with a pin for engagement with a bayonet slot and annulus in the rear of the mandrel; pressure on the taper of the mandrel is sufficient to transmit adequate torque for all the machining operations.

The mandrel carrying the component is positioned in correct radial relation to the spindle by a retractable sliding locator plate held against the flat side of the component flange while the air cylinder mechanism is operated, and the mandrel drawn back tight in the spindle. Drilling is, therefore, performed within the cycle time necessary for the operations at the other spindle positions, and the holes are located accurately and in correct relation to the form of the component.



Multiple-drill head fitted at the fifth station; drilling being performed immediately before unloading

Increasing the Clearance of an Overbridge

(*Concluded from page* 303)

were cut into the arch ring proper and three broad-flanged I-beams 36 cm. in height wedged between the transverse stiffeners, so that the vault thrust was transferred to them. Then, the rest of the crown section was demolished.

The I-beams were thus used not only for the transmission of the vault thrust but also to carry, first, the protective planking during the demolition, and, later, the shuttering for the concrete frame. During the concreting, slots had to be left open through which the I-beams could be removed.

RAILWAY NEWS SECTION

PERSONAL

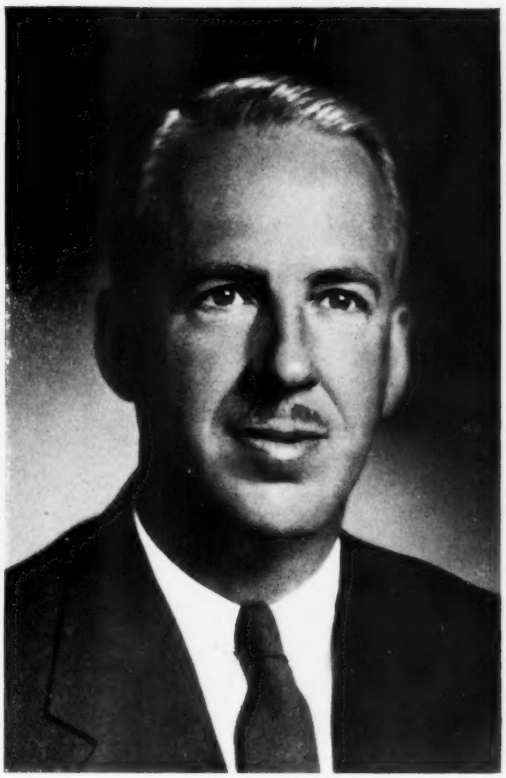
Among those present on the platform at Victoria Station on March 10 during the departure of the President of France were Sir Eustace Missenden, Chairman of the Railway Executive, and Mr. V. M. Barrington-Ward, Member of the Executive.

DINNER TO MONSIEUR P. TISSIER

On the occasion of the recent visit of the French President, Sir Cyril Hurcomb, Chairman of the British Transport Commission, entertained Monsieur Pierre Tissier, Chairman of the French National Railways, at dinner on March 8. Those present included Monsieur Lagnace, Assistant Secretary-General, French National Railways; Monsieur Deshayes, Managing Director, French Railways Limited, London; Lord Latham, Chairman, London Transport Executive; Sir Eustace Missenden, Chairman, Railway Executive; Mr. David Blee, and Mr. V. M. Barrington-Ward, Members, Railway Executive; Mr. Miles Beevor, Chief Secretary & Legal Adviser, British Transport Commission; Mr. R. H. Hacker, Chief Officer (Continental), Railway Executive; Mr. P. C. Durrant, General Agent for France of British Railways.

Mr. D. W. Hadfield, who retired in April, 1948, as Chief Mechanical Engineer, Burma Railways, and has since been engaged as an engineer in the London office of Rendel, Palmer & Tritton, has been appointed General Manager of Robert Stephenson & Hawthorns Limited, with charge of its locomotive works at Darlington and Newcastle-on-Tyne.

Mr. Stanley F. Dingle, who, as recorded in our February 10 issue, has been appointed Vice-President in charge of Operation, Canadian National Railways, with system jurisdiction, has had thirty years' experience in the Engineering and Operating Departments of the Canadian National and its predecessor companies, and has served on operating and special committees of the Association of American Railroads and of the Railway Association of Canada. The departments which he will now head were formerly under the direction of Mr. N. B. Walton, Vice-President, who died last month. Mr. Dingle, who is 48 years of age, was educated at the public and high schools at Winnipeg, and took special studies at the University of Manitoba. He started his railway career in 1920 in the Engineering Department of the Grand Trunk Pacific Railway at Winnipeg. He became secretary to the Assistant General Manager of the Western Region, Canadian National Railways, in 1923, and in 1925 was made secretary to the General Superintendent of Transportation of that region. After serving as Chief Clerk in the Transportation Department at Winnipeg from 1930 to 1939, he was appointed Assistant Superintendent at Dauphin, and he was promoted to be Superintendent of that division in 1941. He was Divisional Superintendent at Winnipeg from 1942 to 1944, when he was appointed General Superintendent in charge of the Alberta District. In 1946 Mr. Dingle was selected for the post of Chief of Transportation for all Canadian National lines, with headquarters at Montreal, and he was appointed in 1948 to be Assistant Vice-President of Operation, a position he has occupied until the present time.



Mr. S. F. Dingle

Appointed Vice-President (Operation), Canadian National Railways

Mr. W. H. Hobbs

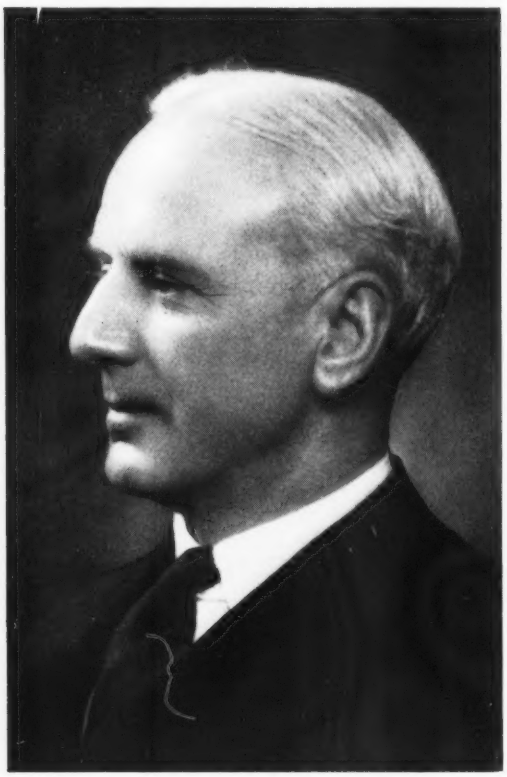
Appointed Vice-President (Personnel), Canadian National Railways

Mr. W. H. Hobbs, Secretary of the Canadian National Railways, as recorded in our March 10 issue, has been appointed Vice-President (Personnel). In announcing the appointment recently, Mr. Donald Gordon, Chairman & President of the company, said it had been made for the purpose of carrying out the management's policy of modernising the planning activities of the Personnel Department. Mr. R. C. Johnston, Assistant Vice-President (Personnel), will continue to conduct the labour relations of the railway with the unions. Mr. Hobbs was born at Bletchley, Buckinghamshire, in 1891, and entered the service of the Grand Trunk Railway in Montreal in 1913, after a few years with the South Eastern & Chatham Railway. In 1914 he became secretary to the President, and from 1922, on the formation of the Canadian National Railways system, he acted as secretary to the late Sir Henry Thornton during the entire period of the

latter's tenure of office as Chairman & President. Mr. Hobbs was appointed Assistant Secretary of the Canadian National Railways system in 1932, and Secretary in 1935, also Secretary of Trans-Canada Air Lines in 1937.

We regret to record the death on March 10, at the age of 70, of Sir Frederick Charles Stewart, D.L., LL.D., J.P., Chairman of the North British Locomotive Co. Ltd. since 1946, and a member of the board of that company since 1944. He was also Chairman of Thermotank Limited, Thermotank Engineering Co. Ltd., and Thermotank (S.A.) (Pty.) Ltd., and President of Thermotank (Canada) Limited, all of which companies were founded by him with his brothers, the late Mr. A. W. Stewart and the late Mr. W. Maxwell Stewart. Sir Frederick Stewart was also Chairman of Kelvin, Bottomley & Baird Limited, and a Director of many other companies, including William Baird & Co. Ltd., Midland Bank Limited, and Clydesdale Bank Limited. He was Consulting Ventilating Engineer to the Ministry of War Transport for all ships carrying British and American troops during the recent war. Sir Frederick Stewart was a Past-President of the Institution of Engineers & Shipbuilders in Scotland, and an Honorary Member of that Institution. The honorary degree of LL.D. was conferred on him at the Glasgow University Graduation Ceremony in June, 1946. In the 1914-18 war he served with the 9th Battalion, Argyll & Sutherland Highlanders. He was knighted in 1944.

We regret to record the death on March 8, at the age of 74, of Mr. Raymond Carpmael, O.B.E., M.I.C.E., M.I.Mech.E., M.Inst.T., who retired on December 31, 1939, from the post of Chief Engineer, Great Western Railway, which he had occupied since January, 1929. When, in June, 1940, the services of Mr. A. S. Quartermaine were lent temporarily to the Ministry of Aircraft Production, as Director-General of Aircraft Production Factories, Mr. Carpmael re-entered G.W.R. service as Acting Chief Engineer, relinquishing that post when Mr. Quartermaine resumed railway duties as Chief Engineer early in 1941. After his final retirement his services were in some demand as a consultant. Mr. Carpmael was educated privately between 1883 and 1890, and then at Dulwich College. Between 1894 and 1899 he served a pupilage with Stothert & Pitt Limited, and supervised the erection of harbour cranes and other equipment, both in this country and in Germany, Mexico and elsewhere. He then spent 18 months on the commercial side of the firm's business. In 1900 Mr. Carpmael entered the service of the Great Western Railway in the Bridge Department at Paddington, and in the next year was appointed an assistant on the Fishguard harbour works; in 1902 he was appointed Chief Assistant. During 1907-08 he served as Resident Engineer in charge of new works at Weymouth and Carmarthen. From 1909 he was Chief Assistant on the Shrewsbury Division, and in 1916 was transferred in that capacity to the Gloucester Division. During 1917 he was senior engineer in charge of No. 3 (G.W.R.) Civilian Railway Company, engaged in laying and maintaining railways in France and Flanders. In 1919 he was appointed Divisional Engineer at Shrewsbury, and in 1922 was transferred to Neath in a similar capacity. Two years later he became Assistant to the Joint Chief Engineers at Barry, and in 1926 Assistant to the Joint Chief Engineers at Paddington. He was appointed Chief Engineer in January, 1929. Mr. Carpmael made official inspections for his company of railways in the U.S.A., Germany, Spain and France, and attended meetings of the International Railway Congress in Madrid and Paris. In 1938 he visited India as a member of a committee appointed by the Government of India to investigate certain locomotive and track problems. Subsequently to his visit to America, he introduced petrol-driven trolleys on the G.W.R. for the conveyance of permanent-way men. Mr. Carpmael was President for four years of the Permanent Way Institution, and was a member of many engineering societies. He received a number of awards from various institutions for papers read before them; in 1928 the Institute of Transport awarded him its Gold Medal (Engineering) for a paper entitled "Speed and Safety on the Railways"; in 1931 he received an Additional Thomas Hawksley Premium from the Institution of Mechanical Engineers, an award for a paper on "Steel Sleepers," for the extensive use of which on the G.W.R. he was mainly responsible; and in 1932 he was awarded by the Institution of Civil Engineers a Telford Premium for a paper on "Cementation in the Severn Tunnel."



The late Sir Frederick Stewart
Chairman, North British Locomotive Co. Ltd., 1946-50

Photo] [Lafayette
The late Mr. Raymond Carpmael
Chief Engineer, Great Western Railway, 1929-39

Mr. J. C. Atkinson, hitherto Traffic Manager, has been appointed General Manager of the Jamaica Government Railway, in succession to Mr. H. R. Fox, who has retired.

Mr. W. H. Corney, Passenger Assistant, Commercial Department, Southern Region, British Railways, has been appointed Assistant Commercial Superintendent.

The late Mr. W. J. E. Binnie, who was Senior Partner in the firm of Binnie, Deacon & Gourley, Consulting Engineers, and President of the Institution of Civil Engineers for 1938-39, left £30,539.

We regret to record the death on March 11 of Sir Joshua Scholefield, K.C., who was Chairman of the Railway Assessment Authority from 1930 until the abolition of the Authority in 1948.

Those recently elected Members of the Institution of Mechanical Engineers include Mr. Norman Johnson, Chief Engineer of the Pullman Car Co. Ltd. Those transferred from Associate Membership to Membership of the Institution include Mr. H. A. V. Bulleid.

We regret to record the death on March 11, at the age of 69, of Sir Ralph Freeman, M.I.C.E., who was consulting engineer for the design of Sydney Harbour Bridge and many other notable bridges. He was Senior Partner in the firm of Freeman, Fox & Partners.

Sir Robert Sinclair, President of the Federation of British Industries, was nominated on March 8 at the meeting of the F.B.I. Grand Council for a second year of office. This nomination, which was unanimously approved, will come before the annual general meeting of the Federation in April.

The Board of Trade announces that, consequent on the appointment of Mr. H. Dawes as Secretary of the Durham Divisional Board of the National Coal Board, Captain H. P. K. Oram, R.N. (retired), Regional Controller for the Board of Trade in the Eastern Region, has been appointed Controller for the Board of Trade in Wales.

Engineer & Railway Staff Corps

The following promotions were gazetted recently under the heading of Territorial Army—Royal Engineers: Engineer & Railway Staff Corps:—

Lt.-Colonel W. P. Shepherd-Barron to be Colonel, July 1, 1949.

Major J. Rawlinson to be Lt.-Colonel, July 1, 1949.

Major W. S. Graff-Baker to be Lt.-Colonel, September 4, 1949.

Railway Executive Appointments

The Railway Executive has approved the following appointments in connection with the co-ordination of the stores work of British Railways:—

Mr. C. S. Douglas, Head of Purchasing Section, Stores Superintendent's Department, London Midland Region, to be Assistant (Purchasing & Sales), Stores Department, Railway Executive Headquarters.

Mr. A. W. Bickham, Head of Outdoor & General Section, Stores Superintendent's Department, London Midland Region, to be Assistant (General), Stores Department, Railway Executive Headquarters.

Both these officers will be located at Euston.

Mr. Henry Gibson has resigned from the board of Metropolitan Railway Country Estates Limited.

Mr. J. R. M. Poole has been appointed Chief Architect of the Timber Development Association.

Dr. H. J. Nichols has been appointed Registrar & Secretary of the Professional Engineers Appointments Bureau.

Mr. George Roberts has been appointed Senior Assistant to Accountant, Eastern & North Eastern Regions, British Railways.

We regret to record the death on March 12, at the age of 60, of Lt.-Colonel Francis Ward, O.B.E., M.C., late Scots Guards, who became well known in railway circles during the recent war as the officer in command of all Railway Traffic Officers in the London District.

Mr. Erskine W. Manterfield has been appointed Director of Public Relations & Advertising for the American Locomotive Company, in place of Mr. Holmes Brown, who has resigned to accept another appointment.

East African Railways & Harbours

Mr. R. M. L. Lemon has been appointed Administrative Assistant to the General Manager.

Mr. Q. More, Mr. M. Cranfield and Mr. E. A. G. Harrop have been appointed Assistant Traffic Superintendents.

Reception to meet Mr. A. A. Gardiner

A reception was given on March 10 by Mr. James B. Thom, European Manager, Canadian National Railways, at the Cockspur Street offices, to meet Mr. A. A. Gardiner, General Passenger Traffic Manager, C.N.R., who recently arrived from Montreal on a visit to Europe (see also accompanying illustration). Those present included Agents-General of Canadian Provinces and many prominent representatives of railway, shipping, air transport and travel circles.

We regret to record the death in London on March 12, at the age of 54, of Dr. Tateos Agob Kurdian, Chief Medical Officer, Iraqi State Railways.

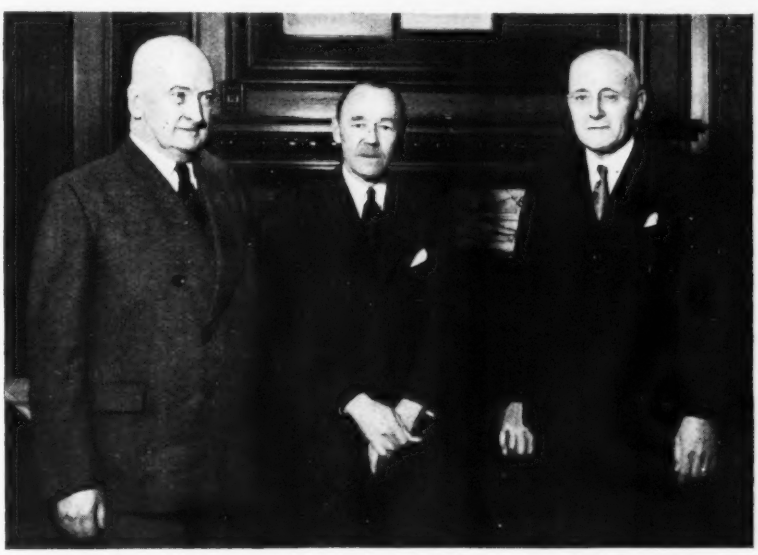
The Earl of Verulam has been appointed Chairman of Sterns Limited and Sternol Limited, in succession to his late father, the Fourth Earl, who had held the position for the past twenty years.

Among those recently transferred from Associate Membership to Membership of the Institution of Civil Engineers is Mr. S. M. Johnson, Deputy Chief Engineer, Bridges, North Western Railway, Pakistan.

Mr. O. G. Wynn has been re-appointed Chairman, and Mr. J. Pollitzer, Vice-Chairman, of the Heavy Haulage Functional Group of the Road Haulage Association for the ensuing year. Mr J. Pollitzer has also been re-appointed to represent the group on the National Council.

Dr. G. O. Hughes, M.C., who was recently appointed Medical Officer, Euston, London Midland Region, British Railways, was previously Divisional Medical Officer, Southern Region, London Bridge. He was educated at Swansea Grammar School, Liverpool University and London University, and became M.B., Ch.B. (Liverpool) in 1938; M.R.C.S. (Eng.), L.C.R.P. (Lond.) in the same year; D.P.H. (London Univ.) 1947, and D.I.H. (R.C.P. & S.) in 1948. He was Resident Surgical Officer, Macclesfield General Infirmary, 1938-39, joined the R.A.M.C. with the rank of Major in 1940, and served in the Western Desert, Sicily, Italy (where he won the Military Cross), the Middle East, Madagascar and Germany. After his return to civilian life Dr. Hughes joined the Southern Railway in 1947 as Medical Officer.

C.N.R. Officers at Reception in London



Mr. A. A. Gardiner, General Passenger Traffic Manager, Canadian National Railways (left), Mr. J. B. Thom, European Manager, C.N.R., and Mr. J. P. McClelland, General Passenger Agent, London, C.N.R., at a reception given recently in London by Mr. Thom in connection with Mr. Gardiner's visit to Europe (see accompanying paragraph)

International Agreement on Railway Freight Questions

Principal recommendations of Working Party set up to consider modifications of European railway conventions

The United Nations Economic Commission for Europe early in February convened a working party representing fourteen Governments and certain international bodies to discuss international railway questions, mainly commercial, involving the revision of the international convention governing freight traffic, the C.I.M., and its passenger counterpart, the C.I.V. (The scope and history of these conventions and of the various international railway associations were described in *The Railway Gazette* of December 4, 1942, and two following issues.)

The unsuitability of the C.I.M. in the light of certain countries', and notably Eastern European, economic needs, and the desirability of concluding regional agreements between different countries was urged by the Czechoslovak, Hungarian, Jugoslav, and Polish delegates, but it was stated by the representatives of the Western European Governments that only if a wider interpretation or possible revision of the C.I.M. failed to meet such special needs could they concede the necessity for regional agreements.

The working party urged examination of the possibilities of a more expeditious system of revising and implementing the conventions. It considered that C.I.M. provision regarding the liability of railway administrations should remain in force. It felt that some equality should be established between the legal conditions governing the operation of rail, road and other transport. It noted that at a very recent E.C.E. road transport meeting, legal experts had agreed that the contract for the transport of goods by rail should be brought into harmony with those concerning the contract for the transport of goods by rail in so far as this was compatible with the features peculiar to each form of transport. The secretariat was asked to widen the scope of its study on the economic implications of carrier's liability in road transport to include liability in rail transport.

To bring the legal provisions in line with new economic conditions was not considered sufficient. It was observed that in revising the C.I.M. account must be taken of recent changes in rail transport technique, particularly in the transport of perishables, where modern techniques call for careful study of provisions of the transport contract and especially of the carrier's liability.

It was recommended that in revising the regulations governing privately-owned wagons, account should be taken of the fact that such wagons are often used for the transport of categories of goods (such as liquids) requiring special equipment. Privately-owned wagons were of advantage to users and a useful adjunct to the railways from both the financial and technical points of view. Therefore it was agreed that new regulations as favourable as possible to this category of wagon should be drawn up.

In view of the increasing tendency to employ more than one form of transport in consigning goods, the working party, whilst admitting that the establishment of a combined transport contract did not seem at the moment to come within the range of immediate practical possibilities, recommended the examination of the effect of the C.I.M. on any possible co-operation of rail transpoprt with other forms of transport and on the co-ordination of the various forms of inland transport.

Fluctuations in foreign exchange rates and obstacles to the transference currency between countries have made it difficult to carry out certain C.I.M. and C.I.V. provisions, particularly those regarding mutual settlements by railway networks of their respective shares in transport charges, and, payment of transport charges. Schemes for overcoming certain of these difficulties are now in operation or shortly to be applied, such as a new accounting system. The working party noted that, even after the application of the new accounting method, some railway administrations would continue to experience payments difficulties of a type which neither the administrations themselves nor the International Union of Railways could overcome. It therefore set up a sub-group to examine these questions, which is to meet after the new accounting methods have been in use for about five months. By that time the difficulties still impeding complete freedom of settlement will be known.

It was agreed that the drafting of certain articles of the C.I.M. would be facilitated by co-ordination of international tariff structures; this implied an effort to unify both the nomenclature and classification of goods and the basis of tariff systems. The working party therefore suggested that an *ad hoc* working party be set up of the E.C.E. Rail Transport Sub-Committee.

Irish Transport Bill Passed

The report stage of the Irish Transport Bill, 1949, was reached on March 7, when Mr. H. Morrissey, Minister for Industry & Commerce, moved an amendment to insert a new section providing that the board of Coras Iompair Eireann shall consist of not less than three and not more than seven members to be appointed by the Government.

Mr. Morrissey said that the amendment was to meet objections made during the committee stage to the original proposal, that the Government should appoint six members and that the board should be free to appoint the General Manager as a Director.

Mr. S. Lemass moved an amendment to provide that a whole time executive officer of the company shall not be eligible to be a member of the board. He had tabled his amendment to get an indication of the type of board now contemplated.

Mr. Morrissey replied that there was no desire that the board should consist of heads of departments or executive officers. It would be unfair, however, at this stage to impose any greater restriction on the selection to the board of C.I.E. than had been imposed on any other State company established so far. They were all anxious, continued Mr. Morrissey, to obtain the sort of board and type of personnel which would give the organisation the best chance of success.

It would be unreasonable to have the position that at no time and under any circumstances a chief executive officer would not be eligible and in certain circumstances, such an appointment might be very helpful.

This amendment was withdrawn, and the first amendment by Mr. Morrissey accepted.

An amendment to provide that the board would not be covered by the Public Authorities Protection Act was accepted.

Mr. Lemass moved an amendment to give the Minister power by order to require the company to provide new services or extend existing services where it was regarded as necessary.

Mr. Morrissey said that he would not accept the amendment. He believed the question of frequency of service and changes of route were matters that should reasonably be determined by the appropriate officers of the company.

The amendment was withdrawn.

Mr. Lemass moved an amendment to provide that branch lines closed under the Emergency Powers Order of 1944 be reopened, unless within 12 months of the appointment of the new board the decision to close the lines permanently was approved by the Tribunal which the Minister proposed to establish.

Supporting the amendment Mr. D. Allen said that local authorities were seriously perturbed at the great amount of traffic which was now being thrown on the roads and which formerly used the railway.

Mr. Morrissey said that under Section 56 of the Bill the company could not discontinue permanently lines which were closed down temporarily. They would have to go to the Tribunal. If there was any attempt to delay approach to the Tribunal, deputies had the machinery at their disposal to deal with it.

On a division the amendment was defeated by 67 votes to 49.

The report stage was then passed, and next day, March 8, replying to the debate in the final stage, Mr. Morrissey said that at no time was the Bill intended to provide an ideal solution to their problems. The money, he said, which stock holders were going to be paid and the interest that they would be paid was the sum which was assessed as being a fair compensation due to them.

The Bill was passed without a division.

PRESENTATION TO NORTH EASTERN REGION LENGTHMAN.—On February 21 British Railways, North Eastern Region, presented a gold watch and a certificate to Mr. Simon Raw, Lengthman, of Cowton, Darlington, for his action on September 12 when travelling as a passenger on the 2.16 p.m. train from Penrith to Lancaster *via* Shap. At about 2.45 p.m. while the train was running up-hill, Raw saw what seemed to be pieces of wood and metal on the down line; with great presence of mind he wrote "Timber across the line" on a newspaper and threw it out of the carriage window to some men working on the line, at the same time pointing in the direction of the obstruction. The ganger-in-charge, who picked up the newspaper, investigated and found the obstruction, which was large enough to derail a train, and cleared the line shortly before the 11.5 a.m. train from Birmingham to Glasgow passed that point. The culprit, a labourer of no fixed abode, was traced the same day and later sentenced to seven years' imprisonment.

Ministry of Transport Accident Report

Epsom, Southern Region, British Railways: July 28, 1949

Brigadier C. A. Langley, Inspecting Officer of Railways, Ministry of Transport, inquired into the accident which occurred at 7.28 a.m. on July 28, 1949, at Epsom, Southern Region, when the 7.10 a.m. electric train, Effingham Junction to London Bridge, left No. 3 platform against the starting signal and collided sidelong with the 7.7 a.m. electric train, Wimbledon to Effingham Junction which was entering the station after having been stopped at the home signal for the Waterloo line. There were some 70 to 80 passengers in the former train and 80 to 100 in the latter, but there were no serious casualties and those slightly injured received prompt attention.

The accompanying diagram shows the lines, signals, and so on, concerned in the case. The down train was struck by the corner of the leading coach of the other, and the all-steel bodywork of the first two vehicles stood well up to the shock. The trailing bogie of the second coach was derailed; this apparently caused complete derailment of the third vehicle, which became detached from its bogies and overturned. Only the first coach of the up train was damaged. Damage to track and signalling was slight. A local bus service was operated at first but emergency arrangements were soon completed for the resumption of train services. The lines were finally cleared at 7.10 p.m. without serious inconvenience having been caused to passengers. The weather was fine and clear.

No. 10 signal, which was passed at danger, was only 40 ft. from the fouling point of the down line from Waterloo, and there being a road underbridge close to the crossing, protection by a facing trap or crossover was impracticable. A co-acting detonator was therefore provided. There is a stopping mark 85 ft. in rear of the signal, applicable to all trains.

Relevant extracts from the rules regarding starting trains and observing signals are as follow:—

RULE 141. Starting of Passenger Trains:

(b) The signal for starting a passenger train must be given by the guard, where provided, after obtaining an intimation from the person in charge of the platform that all is right for the train to proceed . . .

When it is impossible for the guard's signal to start the train to be seen by the driver, the person in charge of the platform must, after satisfying himself that the signal to start has been given by the guard, signal to the driver accordingly.

RULE 143. Driver not to leave station . . . without proper signals:

When a train is about to leave a station, siding, or ticket platform, the signal to start given by the guard only indicates that the station duty or the collection of tickets is completed; and, before starting the train, the driver must satisfy himself by observation that the line is clear, and the necessary fixed signal, where provided, is lowered . . .

Evidence

The up train normally leaves at 7.26 a.m., and the down is due at 7.28 a.m. As the up train was running about a minute late, the signalman allowed it to enter No. 3 platform and, as he then saw that the other train was standing at No. 53 signal, he decided to bring that one in before allowing the up train to proceed. As soon as the latter had stopped he pulled off 53 signal and watched the train from Wimbledon approach. As it was crossing the junction he saw the up train start against No. 10 signal.

A carriage cleaner, standing by the "S" mark, had some conversation with the motorman. A porter, halfway down the platform, gave the "right away" signal and he repeated it to the motorman. The train started at once and two passengers rushed past and jumped in. He heard the detonator explode and saw the trains collide. He did not look at the starting signal, but thought he was helping by passing on the "right away." He had been previously a porter, and knew the station routine.

The porter was near the down end of platforms 3 and 4 when the up train stopped, and he walked forward closing doors. About halfway along he stopped and signalled to the guard, who waved his flag. He could not see the starting signal, but passed the guard's signal on. The motorman started at once and the porter saw the two passengers jump in. The driver, still looking out of his cab, appeared to have his attention attracted by them.

The guard, travelling at the rear of the train, said he unloaded some mail bags and then saw the porter give the "right away" to him. He could not see the starting signal, but gave his green flag signal, which the porter passed on.

The motorman of the up train found Epsom distant signal against him, but the home signal No. 9 was "off" with distant arm below it "on." He stopped at the "S" mark and began talking to the cleaner, whom he took to be a porter. He had noticed that the starting signal was at danger.

After a minute or two the cleaner raised his hand and said "Right, driver." He took this for the "right away" and started and admitted he did not observe the starting signal again but continued to look across at the two men attempting to join the train.

As the train was gathering speed the detonator exploded and he realised what had happened. He immediately released the "dead man's handle." On some mornings his train was held to allow the down train to enter, but generally he got a clear run. He admitted that it was his responsibility to satisfy himself regarding the signal before starting.

The motorman of the down train said he was stopped at signal No. 53 for two minutes and when it was cleared he restarted. As he approached the diamond crossing he noticed the other train waiting and saw the porter give the "right away." He was astonished to see it moving just as his leading coach was passing over the diamond crossing at about 15 m.p.h. He was often stopped at the home signal and it was quite a common occurrence to find a train standing at No. 3 platform.

On the assumption that the up train made a normal start, the Electrical Engineer of the Southern Region estimated that it would have been travelling at 10 to 10½ m.p.h. when it exploded the detonator, and, allowing one second for the motorman's reaction, would have stopped approximately 52 ft. further on, or 67 ft. from the signal, an over-run of 27 ft. beyond the fouling point. Had the signal been only 45 ft. instead of 85 ft. from the "S" mark—or 80 ft. from the fouling point—the train would have stopped 35 ft. clear of that point.

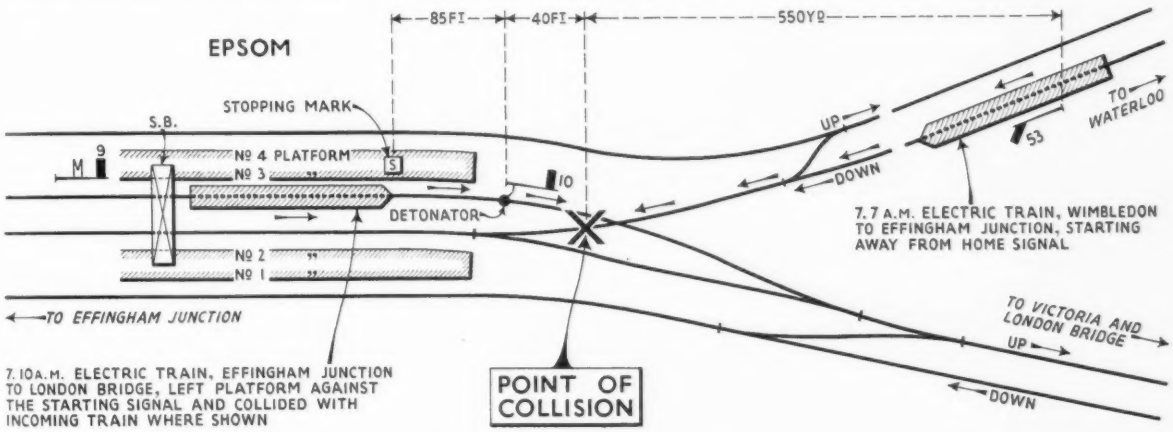


Diagram illustrating circumstances of the accident at Epsom, Southern Region, July 28, 1949

Inspecting Officer's Conclusion

The collision was due to the serious failure of the motorman of the up train who, instead of attending to his duty and

watching the starting signal, which he admitted having seen at danger, spent his time talking to the cleaner from whom he accepted the "right away" without further thought. His attention was then attracted by the last-minute passengers and only the noise of the detonator brought him to his senses. He is 48 years of age, with 30 years of service, driving both steam and electric trains for four years, and with a fair record as a motorman.

It was unfortunate that the carriage cleaner gave the "right away" without looking at the starting signal, clearly in his view, in an attempt to speed up the working. The porter was in order in passing on the signal from the guard who, however, could have seen the starting signal if he had stepped back two or three yards, but he cannot be criticised seriously for failing to observe it.

Remarks

The rules regarding starting of passenger trains are clear and correctly place responsibility for observing fixed signals solely on the driver, who should not allow his attention to be distracted. This is a matter of self-discipline.

As a trap point or crossover is impracticable to protect against an over-run at No. 10 signal, the maximum degree of protection should be provided and the signal has now been moved 60 ft. nearer—or 25 ft. from—the stopping mark, increasing the over-run to 100 ft. and improving the sighting from the platform. In the unlikely event of another overrun this should result in speed being low enough for the detonator warning to be effective. In view of this action Brigadier Langley makes no recommendation.

Canadian Railways Require British Goods

Both the Canadian Pacific Railway and the Canadian National Railways are now seeking United Kingdom sources of supply for a wide range of goods. These railways import large quantities of equipment every year and in 1949 goods to the value of $80,000,000 were bought by the C.N.R. alone.

The requirements of the C.P.R. and the C.N.R. are as follow:—

Engineering Equipment and Materials: Diesel locomotives; stokers; cylinder cocks for steam locomotives; headlights and parts; air conditioning sets (mechanically operated); lightning arrestors; air conditioning grilles for coaches; wrecking cranes; stokers for power plants; ball and roller bearings; batteries (track signal); batteries (car lighting); multi-vent ceiling panels for coaches; steel running boards for cars; brake sets for cars; steel platforms for cars; mauls, spike; odour absorbers for cars; air conditioning control equipment; tube cleaners; electric water coolers for cars; machines, drilling, track, and bonding; welding equipment; telegraph equipment accessories; lock washers; car movers; oil-burning equipment; heat treating furnaces; crack detecting equipment; pneumatic tools; lighting sets; machine tools; track chisels; signal material; shop tractors; jacks, track, etc.; track motor cars; track hand cars; track push cars; track velocipedes; mechanical lubricators; volt meters; ammeters; generator drives; blueprint machines; rivet snaps; pipe wrenches; glass insulators; blast cleaning equipment; crossing gates mechanism; snow ploughs; firebrick; fibre, track insulating; fireclay; foundry sand; plymetal; standpipes and parts; cement (plush to metal); seamless tubing; metal embossing tape.

Miscellaneous Equipment: Dispensing machines (towels, soap, etc.); coal; goggles and helmets; teletypes; accounting machines; addressograph machines, typewriters; plush; customs seals; china; table glassware; curtain fixtures; buckets, clam, shell, etc.; glass pressed prism plate; coarse salt; joints rail compromise; kitchenware; formice; electric "safety" shades.

Trade associations in all the relevant industries have already been asked by the Ministry of Supply to approach the Canadian railways for full details of their requirements. The London representatives to be approached are:—Mr. F. Fawke, Purchasing Agent, Canadian Pacific Railways, 62, Trafalgar Square, S.W.1, and Mr. J. B. Thom, European Manager, Canadian National Railways, 15-19, Cockspur Street, S.W.1.

Staff & Labour Matters

N.U.R. Wage Claim

The claim submitted by the N.U.R. to the London Transport Executive for an increase in pay for lower-paid railwaymen was declined on March 10 at a meeting between representatives of the union and of London Transport Executive. About 5,000 men are concerned and the matter will now be considered by the Executive Committee of the N.U.R.

This is the last of the claims which the N.U.R. has submitted to the Executives coming under the control of the British Transport Commission, similar applications having been rejected recently by the Railway Executive, the Docks & Inland Waterways Executive, and the Hotels Executive.

Engineers' Wage Claim

A meeting of the Executive Committees of the 37 unions affiliated to the Confederation of Shipbuilding & Engineering Unions decided at York on March 9 to ballot on whether strike action or reference to the National Arbitration Tribunal should follow rejection by the employers of the claim for an increase of £1 a week, for all engineering workers. The resolution, which was promoted by the A.E.U., was carried on a card vote by 624,000 against 519,239, although only seven of the 37 unions supported the motion.

The Association of Supervisory Staffs, Executives & Technicians proposed that the dispute should be referred to the National Arbitration Tribunal, but this was not carried. As an alternative, the General & Municipal Workers' Union and the Transport & General Workers Union suggested that a new demand should be put forward for a new wage structure with a minimum of £5 a week. This amendment was also defeated. A third amendment that a court of inquiry should be established to investigate the allegation that the £1 a week increase could not be met entirely out of profits also was rejected.

The result of the ballot will be declared at a meeting of the Confederation in York on July 13.

Negotiating Machinery

An agreement has been made between the Docks & Inland Waterways Executive and the unions concerned, namely, the T. & G.W.U., N.A.L.G.O., N.U.R., and R.C.A., to set up and maintain machinery for the negotiation of terms and conditions of employment of administrative, professional, technical, supervisory, and clerical grades whose salaries do not exceed £630 a year. The agreement provides for the setting up of a National Joint Council and four divisional joint councils. At the first meeting of the National Joint Council held on March 7, Sir Reginald Hill, Chairman of the Docks & Inland Waterways Executive, welcomed the representatives. Mr. J. Donovan, Member of the Executive, was elected Chairman of the National Joint Council for the ensuing year, and Mr. W. J. P. Webber, Assistant General Secretary, R.C.A., was elected Vice-Chairman.

G.I.P.R. Officers Reunion Dinner

On March 3, forty-four ex-officers of the Great Indian Peninsula Railway attended a reunion dinner at Oddenino's Hotel, Piccadilly, London. The chair was taken by Sir Leonard Wilson, a former General Manager of the G.I.P.R. and Chief Commissioner of Indian Railways in Delhi.

Sir Leonard Wilson, proposing the toast of the G.I.P.R., said that it had been in existence for the last 100 years, and had been a pioneer railway throughout. He claimed that it was the G.I.P.R. which was chosen to give the first Indian trials to new enterprises among them being electrification, power signalling on a fairly large scale, and the air conditioning of passenger stock.

Colonel R. B. Emerson, who had also been a General Manager of the G.I.P.R. and Chief Commissioner of Indian Railways, responded to the toast.

The Honorary Secretary for the dinner arrangements was Mr. A. Pickard, and the following officers attended the function:—

Messrs. W. G. Alcock, A. E. Aylott, H. Alchin, S. Barber, D. S. Burn, H. N. Brock, H. H. C. Barton Sir G. E. Cuife, Messrs. C. M. Cock, H. E. Cox, E. Colvin, J. H. Carpenter, Colonel J. C. Clutterbuck, Messrs. J. Clegg, J. N. Compton, Colonel R. B. Emerson, Mr. E. L. Ensor.

Messrs. A. J. Fraser, E. J. Gannon, A. P. Goldney, L. J. Gellard, R. J. Harris, C. E. Hall, R. V. Hitchcock, W. Hood, L. A. Hoyle, E. Ingoldby, L. S. Johnson, F. G. Langdon, A. E. Mould, D. Mac Gee, J. W. Morrison, G. J. Presswell, H. J. Pyne, E. W. Russell, J. B. Remington, C. I. Routh, D. Scott-Scott, Sir L. Wilson, Messrs. H. J. Wood, J. C. Wightwick, M. H. Wynne, D. Williams.

Parliamentary Notes

Railway Freight Charges

Mr. Anthony Eden (Warwick & Leamington—C.), speaking in the House of Commons on March 6 in the debate on the Address in reply to the King's Speech, referred to the position of the railways, which had applied to be allowed to raise their freight charges. No one, he said, could blame the railways on that account; it was not surprising, in view of the losses which they had to carry now, running into something like £500,000 a week. If they obtained their increase, the result would be a rise in the cost of coal and other materials, and, of course, increased costs for all who used the railways. Those were all conditions which it was futile to ignore, and they had their effect on the inflationary spiral.

Future of Railway Staffs

When the Address was further debated on March 8, Mr. Thomas Reid (Swindon—Lab.), pointing out that he represented a great railway centre and was well acquainted with railway employees of all grades, said that all those employees, and not merely in Swindon alone, were very

uneasy about their fate should a Conservative Government be returned to power. He assured members of the Opposition, if they did not already know it, that in trade union branches and in other places, such things were very intelligently discussed by those people, who despised third-rate propaganda. The Labour Party proposed to take over large sections of road transport, to amalgamate road transport with the railways and canals, and to have a unified service for the nation. Long before the war the question had been investigated by various commissions, and the trend of opinion in all their reports had been in favour, not necessarily of nationalisation, but of unification, of transport.

In its manifesto the Conservative Party said it did not like to create discord by de-nationalising industry; yet it proposed to incur discord by de-nationalising road transport. What did it think would happen to the railways if the Labour Party's scheme of amalgamating and unifying transport was discarded? Who would pay for the railways? In practically every country railways had to be subsidised or protected in some way from road transport, which took away the cream of the traffic and the profits.

Was it the intention of the Opposition to hand over the railways lock, stock and barrel, to the taxpayer, and did it think that the employees looked forward with any joy to that kind of solution of their problem?

The issues he had raised were, in his opinion, fundamental. He asked the Conservative Party to favour the House with an authoritative, unambiguous and unequivocal statement as to what was its policy. Did it reject the whole system of planning, and the irksome controls over our economic and industrial life which planning involved? Also, how did it propose to run the railways after it had de-nationalised road transport, in the very unlikely event of its coming to power again?

Miss Irene Ward (Tynemouth—C.) said that she also represented a certain number of railwaymen, and she would point out that part of their security of employment was threatened by the high price of nationalised coal and its lower calorific value. If the future of the railwaymen was to be safeguarded, it was necessary to co-ordinate the nationalised industries so as to ensure that all sections of the community had some protection and some security from the State, which now professed to run those industries.

Notes and News

Draughtsman Required.—A draughtsman, with knowledge of rolling stock, is required by a firm in North Midlands. See Official Notices on page 319.

Coppersmith Foreman Required.—The Sudan Railways require a coppersmith foreman, between 25 and 38 years of age, for service in the Sudan. See Official Notices on page 319.

Axles and Steel Tyres for Locomotives and Wagons for Pakistan.—The High Commissioner for Pakistan invites tenders for the supply of axles and steel tyres for locomotives and wagons. See Official Notices on page 319.

Resident Engineer Required.—A resident engineer is required by the Gold Coast Government Railway for the Ankobra and Prestea branch bridges, for one tour of 18 to 24 months in the first instance. See Official Notices on page 319.

Drewry Car Co. Ltd. Order from New Zealand.—The New Zealand Railways have 35 twin-unit articulated diesel-mechanical railcars on order from the Drewry Car Co. Ltd. at a cost of £1,400,000. Ten of the sets will be used specially on the Rimutaka Section and 25 on general duties elsewhere on the New Zealand system.

Buffer-Stop Collision at Paddington.—At about 10.50 p.m. on March 12, an excursion train returning from Wolverhampton was in collision with buffer-stops at Paddington Station, Western Region. About 14 passengers reported for treatment, though nobody was detained in hospital.

Peruvian Corporation.—Payment of a dividend of 3 per cent. will be made on April 1 to holders of first mortgage debentures in the Peruvian Corporation, representing interest due on April 1, 1944.

G.E.C. Traction Order from Victoria.—The Victorian Railways have ordered seventeen 2,400-h.p., 1,500-volt electric locomotives for mixed-traffic duties from The English Electric Co. Ltd. The value of the contract is £A1,300,000 and the locomotives, which are of the Co-Co type and non-articulated, will be built at the Preston works.

Pressed Steel Co. Ltd. Orders from Queensland.—The Pressed Steel Co. Ltd., Linwood, Paisley, has received a second order from the Queensland Railways. It is for 200 steel open wagons, and follows an order for 1,000 hopper wagons. The wagons will be supplied broken down for final assembly at the Sydney works of the Commonwealth Engineering Company.

Leyland Motors Results.—For the year ended September 30 the net profit of Leyland Motors Limited was £674,097 after providing £874,257 for tax. This compared with £591,508 for the previous year when tax was £649,235. Allocations to replacement of plant reserve and to stock depreciation are £200,000 each as for last year. Dividend is to be increased to 20 per cent., against 15 per cent. for some years past, and the carry-forward from £304,605 to £460,192.

Railway Students' Association Dinner and Dance.—Arrangements have been made for a Railway Students' Association, London School of Economics & Political Science, dinner and dance to be held on Friday, April 14, at the London Transport Executive Dining Club, Pelham Street, South Kensington. The function will commence at 6.15 for 6.45 p.m. and preceding the dinner there will be a reception by the President, Mr. John Benstead (Deputy Chairman, British Transport Commission), who will be accompanied by Mrs. Benstead.

Institute of Transport South Wales & Monmouthshire Section Dinner.—The annual dinner of the Institute of Transport, South Wales & Monmouthshire Section, took place at the Royal Hotel, Cardiff, on March 2. The President, Brigadier-General Sir H. Osborne Mance, responded to the toast of "The Institute," proposed by Mr. H. J. Thom, Licensing Authority for the South Wales Traffic Area. The Chairman, Mr. E. J. Phillips, responded to the toast "The Section," proposed by Mr. R. B. Southall, General Manager, National Oil Refineries Limited. "Our Guests" was proposed by Mr. L. G. Taylor, a Vice-Chairman of the Section, and Alderman James Griffiths responded.

Debate on Steam and Electric Traction.—On February 28 a debate was held at the Social Club, East Croydon, by British Railways, Southern Region, Lecture & Debating Society; Mr. H. B. Taylor, Assistant Operating Superintendent, was in the chair. Some seventy members were present. The motion that "the steam locomotive has had its day" was proposed by Mr. R. Hume, who advanced arguments for the outdating of the steam locomotive by the technical superiority and economic advantages of electric and diesel-electric traction. Mr. R. A. Savill, in opposition, stressed the point that the steam locomo-

British and French Speeds Compared

A correspondent has sent us the following tables, comparing the aggregate mileage of daily runs in this country and France which are booked at 55 m.p.h. and over this winter, compiled after close study of the current timetables:—

BRITISH RAILWAYS

Region	60 m.p.h. and over		58 m.p.h. and over		55 m.p.h. and over	
	miles	runs	miles	runs	miles	runs
Western					1,080	9
North Eastern	44	1	264	6	1,036	23
London Midland					776	17
Southern (a)			28	1	670	24
Eastern					619	5
Scottish					435	8
Total	44	1	292	7	4,616	86
(a) S.R. (Electric)			28	1	556	22

FRENCH NATIONAL RAILWAYS

Region	60 m.p.h. and over		58 m.p.h. and over		55 m.p.h. and over	
	miles	runs	miles	runs	miles	runs
South Western	1,302	18	2,688	38	4,889	67
Western	1,498	16	2,066	28	3,555	59
Eastern	2,103	12	2,186	15	2,671	23
South Eastern and Mediterranean	1,214	12	1,415	18	2,489	40
Northern	754	12	1,262	18	2,047	26
Total	6,871	70	9,617	117	15,651	215

tive was temporarily labouring under the disadvantage of inadequate and out-of-date depots, bad coal, and lack of skilled crews and maintenance staff, but that improved conditions coupled with the technical advances being made by such designers as Mr. O. V. Bulleid and Mr. H. G. Ivatt would soon restore the steam locomotive to its supremacy; furthermore, that its simplicity, reliability, and independence of oil fuel imported from overseas, gave it added advantages. An interesting debate ensued, to which many members contributed, and after a summary by the chairman, the motion was put to the vote, and defeated by a large majority.

Liverpool Overhead Traffics.—During February there were further declines in Liverpool Overhead Railway traffics, as compared with the equivalent four weeks of 1949. The largest decrease was in the week ended February 5, when receipts at £2,266 were lower by £518. At February 26, aggregate traffics were £19,760, as against £22,224 last year.

London Midland Region Seat Reservations.—Commencing with the summer timetable on June 5, British Railways, London Midland Region, has made arrangements for passengers to book seats on 245 main-line trains from most of the principal stations on the Region; this is 143 more trains than last year. On Sundays seats can be reserved on 89 trains, compared with 36 last year.

London Underground Map in Braille.—A map of the London Underground is being produced by the National Institute for the Blind in collaboration with London Transport and is expected to be ready within the next two months. The map will comprise 27 sheets and will show each Underground line with the station names in braille and interchange stations specially marked. An index of stations and places of interest served by them will be included. Though the map will be relatively bulky, it is anticipated that blind people will carry with them only the section they immediately require, and many no doubt will study the map at home and memorise the routes. The transcription into braille is being executed by Mr. A. E. Jermy, of the National Institute for the Blind, and if it proves a success other maps may be considered. One suggestion, that for a London bus map, could be done, but it would be a tremendous task.

New Restaurant Cars for G.N.R. (I.).—The Northern Ireland Home Service of the B.B.C. is to broadcast recordings made on the occasion of the inspection at Belfast of the new restaurant cars referred to in our March 3 issue, in its "Ulster Mirror" feature between 7.30 p.m. and 8 p.m. on March 30.

Central Wagon Co. Ltd.—The final dividend of the Central Wagon Co. Ltd. is 15 per cent., making 20 per cent. for the year ended September 30, 1949, which is the same as for the preceding year. The consolidated net profit, after deduction of tax, is £133,363, against £204,552, and the parent company's net profit £66,577 compared with £67,733.

Londonderry & Lough Swilly Railway.—The total net income for the year ended December 31, 1949, of the Londonderry & Lough Swilly Railway Company was £11,327, comprising £22,696 profit on the road transport undertaking with a loss of £12,000 on the railway. This, with £3,071 balance from the previous year, and after adjustments in respect of interest and other fixed charges, and provision for statutory charges and taxation, made available a balance of £9,463. Dividends are being paid of 5 per cent., less tax, on the preference and the ordinary stocks, leaving a balance of £4,465 to be carried forward

London Midland Region (London) Orchestral Society.—A vocal and instrumental concert was given in the former Shareholders' Meeting Room, Euston Station, on March 10, by the London Midland Region (London) Orchestral Society. The programme included selections from Gilbert and Sullivan light opera, Weber's Clarinet Concerto No. 1, and a selection from the ballet music "William Tell," by Rossini. The orchestra, leader George Elmitt, was under its honorary conductor John Grindley and the soloists were Miss Dora Blanchard, contralto, and Mr. Ronald Davies, clarinet; the accompanist was Percival Garratt. Both soloists and orchestra maintained the high tradition of the Society and were appreciatively received by a considerable audience. Proceeds will be presented to No. 146 L.M.R. (Camden) Division, St. John Ambulance Brigade.

Euston-Belfast Excursion.—On Friday, March 24, British Railways is running the first Euston-Belfast cheap excursion since before the war.

Sailing Tickets to Ireland.—British Railways, London Midland Region, has announced that sailing tickets will not be required by passengers travelling to Ireland *via* Holyhead-Dun Laoghaire (Kingstown) and Heysham-Belfast during the Easter holidays.

Steel Output Again a Record.—Steel output last month was at the annual rate of 16,898,000 tons as compared with 16,176,000 tons for the same month a year ago. The previous best annual rate was 16,409,000 tons in May last year. Pig-iron output in February attained the annual rate of 9,588,000 tons as compared with 9,422,000 tons in February last year.

Gas Turbine Locomotive Demonstration Run Postponed.—The demonstration run of the British Railways experimental gas turbine locomotive which was to have taken place on the Western Region from Paddington to Plymouth and back on March 14 was postponed. After running successfully for several hundreds of miles, some of the blading on the rotor of the air compressor of the locomotive developed defects, and replacements could not be obtained in time for the run.

British Railways Weed-Killing Programme.—The Railway Executive has arranged for weed-killing trains to spray 14,861 miles of track during 1950. This will require the use of 4,838 tons of chemical weedkiller, mostly sodium chlorate, forming about 1,000,000 gal. of solution. The work will be carried out in the spring and summer by eight trains equipped with apparatus for directing a fine spray of weed killer over the entire width of the ballast as the train proceeds. A non-injurious preparation is used to prevent damage to the track and pollution of water supplies.

Professional Engineers Appointments Bureau.—The number of notifications of vacancies received by the Bureau during 1949 was 1,131, of which 332 were essentially for civil, 513 for mechanical, and 286 for electrical engineers. It is again reported that the greatest demand for engineers overseas comes from tropical countries, especially the Persian Gulf, India, Pakistan and the Far East. The Bureau states that, in view of the difficulty of finding engineers prepared to serve in those countries, and the importance of ensuring so far as possible that British engineers are appointed, the board has given detailed consideration to the problems involved; the principal factors, it says ,appear to be the relative insecurity of the positions, as the contract rarely exceeds five years in the first instance, and the full employment and strongly-maintained demand for professional engineers in this country. As in previous years, the advisory services of the Bureau have been used extensively by registered engineers and employers on a

Mr. A. E. Jermy, of the National Institute for the Blind, preparing a braille map of the London Underground (see paragraph above)

OFFICIAL NOTICES

Crown Agents for the Colonies

RESIDENT ENGINEER required by the Gold Coast Government Railway for the Ankobra and Prestea Branch Bridges, for one tour of 18 to 24 months in the first instance. Salary, including overseas pay, £1,500 a year. Free passages and liberal leave on full salary. Candidates, not over 45 years of age, must have served a pupilage in civil engineering and have had practical experience of Railway Civil Engineering Works, with specialised knowledge of bridge construction and renewals. Apply at once by letter, stating age, whether married or single, and full particulars of qualifications and experience, and mentioning this paper, to the CROWN AGENTS FOR THE COLONIES, 4, Millbank, London, S.W.1, quoting M/N/25312/3A on both letter and envelope. The Crown Agents cannot undertake to acknowledge all applications and will communicate only with applicants selected for further consideration.

STATION DESIGN. A striking example of modern British practice at the important wayside station of Luton. Reprinted from *The Railway Gazette*, July 7, 1944. Price 1s. Post free 1s. 2d. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

Sudan Government

THE Sudan Railways require a Coppersmith Foreman, aged 25 to 38, for service in the Sudan. The duties involve taking charge of the Railway Coppersmith Shop at Atbara and include supervision of normal locomotive coppersmithing, tinsmithing, whitemetalling of locomotive carriage and wagon bearings, and sheet metal work. Candidates should, preferably, have served an apprenticeship in a Railway works or shop engaged on similar varied work. Experience in a foundry would be an added recommendation. Appointment will be on long term contract for ten years on a salary scale £E.360 to £E.780, with special post-service gratuity, or on Provident Fund Contract at slightly higher rates of pay and different post-service benefits. Cost-of-living allowance varying between £E.180 and £E.390 per annum according to the number of dependants is at present payable, and, subject to certain limitations, an outfit allowance of £E.40 is payable on appointment. There is at present no income tax in the Sudan. Free passage on appointment. Full particulars and application form may be obtained on application to: SUDAN AGENT IN LONDON, Wellington House, Buckingham Gate, London, S.W.1. Please mark envelopes "Coppersmith Foreman."

THE High Commissioner for Pakistan invites tenders for the supply of: (*a*) Axles for Locomotives & Wagons; (*b*) Steel Tyres for Locomotives & Wagons. Separate forms of tender for each (*a*) and (*b*) above, which are returnable by April 18, 1950, may be obtained from the Commercial Secretary, Supply & Stores Department, 39/40, Lowndes Square, London, S.W.1, between the hours of 10 a.m. and 4 p.m., Mondays to Fridays, on payment of a fee of five shillings (not returnable) per tender. The references SD. 5931 for Axles and SD. 5946 for Tyres, respectively, should be quoted on all applications for tender forms.

DRAUGHTSMAN, with knowledge of Rolling Stock, required for firm in North Midlands.—Reply to Box 656, *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

4-8-2 CLASS "15F" LOCOMOTIVE FOR THE SOUTH AFRICAN RAILWAYS. The latest examples of these main-line passenger and freight locomotives have been built by the North British Locomotive Co. Ltd. Reprinted from *The Railway Gazette* of September 20, 1946. Price 2s. By post 2s. 2d. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

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wide variety of subjects relating to employment. In September, the Bureau's offices were transferred from No. 13 to No. 9, Victoria Street, Westminster, S.W.1.

Birmingham-Southend-Ostend Air Service.—East Anglian Flying Services Limited has been given provisional approval to operate an air service between Birmingham, Southend and Ostend this summer. The service will be provided from June 3 to October 7 and will operate daily with the exception of Tuesdays and Thursdays.

Bakelite Plastics Exhibition.—A private exhibition of Bakelite, Warerite, and Vybak plastics was opened on March 8 by Mr. H. V. Potter, Chairman & Managing Director, Bakelite Limited, at the British Colour Council, Portman Square, London, W.1. Its central feature is a travelling exhibition which has recently returned from the Continent. It includes separate units demonstrating actual applications for these plastics industry by industry. The exhibition remains open to the public until March 31. Tickets may be had on application to Bakelite Limited, 18, Grosvenor Gardens, London, S.W.1.

New Tourist Body.—A meeting on March 9 of the Travel Association, to consider special resolutions to effect its merger with the British Tourist & Holidays Board into the British Travel & Holidays Association was adjourned until today (March 17); Lord Hacking, Chairman, and, later, Viscount Jowitt, President of the Travel Association, took the chair. The Secretary for Overseas Trade, Mr. A. G. Bottomley, on March 9, said that if the question of the merger was not settled, the Government would have to find an alternative solution. Replying to an adjournment debate in the House of Commons on the tourist trade Mr. Bottomley said that the Government expected 1950 to be another successful year. Every effort would be made to derequisition hotels and a scheme was being considered for building temporary hotels for overseas visitors.

Direct Steamer Service to St. Malo.—British Railways direct steamer service between Southampton and St. Malo will be re-introduced at the end of May, with a weekly sailing from Southampton each Tuesday from May 30 to June 20, returning from St. Malo on Wednesdays, May 31 to June 21. From Monday, June 26, to the end of September the service will be increased to three sailings weekly, outwards Mondays, Wednesdays and Fridays, and inwards Tuesdays, Thursdays and Saturdays. The service will be worked by s.s. *Falaise* and the connecting restaurant car train will leave Waterloo at 6.35 p.m. A through connecting service will run from St. Malo to Nantes and Bordeaux, and this summer through coaches will be introduced to various Lower Brittany resorts. Sailing tickets will be required for the outward sailings from Southampton on Fridays and the inward sailings from St. Malo on Saturdays, and are available at the Continental Enquiry Office, Victoria Station, Southern Region.

Alfred Herbert Limited.—Net profit for the year ended October 31, 1949, of Alfred Herbert Limited was £711,355, against £833,334 for the previous year, less tax and certain special debits. The annual dividend is being maintained at 20 per cent. tax free, with a final recommendation of 10 per cent.

Westinghouse Brake & Signal Co. Ltd.—A slight increase in current assets, to £3,308,618 is shown in the balance sheet as at October 1, 1949, of the Westinghouse Brake & Signal Co. Ltd. Current liabilities were £1,146,721 as compared with £1,796,510 for the previous year. Bank overdrafts were reduced from £652,900 to £52,755, resulting from the issue of £750,000 3½ per cent. unsecured notes repayable in March, 1959.

Fire in Sleeper Yard Near Chester.—There was extensive damage to old stored sleepers when fire broke out in the London Midland Region permanent way department sleeper yard at Mold Junction, near Chester, on March 13. The fire started at about 1.30 p.m. and was not reported as almost extinguished until 6 a.m. the following morning. Eight civil fire brigades were in attendance, as well as firemen from the De Havilland Co. Ltd. aircraft factory and the R.A.F. station at Hawarden. The Crewe fire train was also called out.

Further B.T.C. Road Transport Acquisitions.—In extending its interests in road passenger transport in areas where it is already established the British Transport Commission has acquired by voluntary negotiation the following businesses: Young's Bus Service Limited, Paisley, operating a fleet of 80 buses on road passenger services; the Paisley & District Omnibus Co. Ltd., an associated company of the above which controls 22 buses on local town services in Paisley and a service between Paisley and Renfrew Ferry; and James Sutherland (Peterhead) Limited, operating a fleet of 82 buses and coaches. The operation of these services will be taken over on behalf of the B.T.C. by the Scottish Omnibuses Group. The last mentioned company owns some 96 goods vehicles and carries on an extensive road haulage business in this area. These are also to be taken over.

Record Track Relaying.—During the past 12 months the London Midland Region of British Railways renewed 704 miles of lines and used 98,000 tons of new rail and more than 1,000,000 sleepers. This is a record for any one year. Outstanding effort of the year was the relaying of 1½ miles of track between 4.30 a.m. and 9 p.m. by 103 men at Whitmore.

"Model Engineer" Exhibition.—The jubilee *Model Engineer* exhibition will be held at the New Horticultural Hall, Westminster, London, S.W.1, from August 9 to 19. The exhibition will maintain all its well-known features and demonstrations will be given to help those wishing to take-up model making. A number of exhibits will be on view showing the part played by model making in industry.

United Railways of Havana.—The directors of United Railways of the Havana & Regla Warehouses announce that owing to the intervention on June 10, 1949, by the Cuban Government in the undertaking in Cuba, preparation and audit of the accounts in Cuba for the year ended June 30, has been, and still is, subject to delay. Accordingly it is not possible at this juncture to fix a date for their presentation at an annual general meeting. The directors further state that, due to the need to regularise various legal requirements in the U.S.A. and Cuba, they cannot advance any further information to that given on November 2 regarding the negotiations therein referred to. This likewise applies to the Havana Terminal Railroad Company.

Lecture & Debating Society Meeting at York.—On March 7, the Federation of Railway Lecture & Debating Societies, North Eastern Region, held its third meeting of the session at York, when about 150 members heard an address by Mr. Francis H. Cave, Deputy General Manager & Secretary, Mersey Docks & Harbour Board. Mr. H. A. Short, Chief Regional Officer, North Eastern Region, presided. Before the address Mr. Short presented the prizes awarded in connection with the essay competition promoted by the Federation. The first prize was won by Mr. S. H. Giles, Traffic Apprentice, District Operating Superintendent's office, Sunderland; the second prize went to Mr.

R. S. Goodhind, Chief Regional Officer's office; and the paper submitted by Mr. K. W. Allen, of the Divisional Operating Superintendent's and Motive Power Superintendent's offices was specially commended. In each case the paper submitted was on the relative places of rail and road transport in the future national economy.

Forthcoming Meetings

March 17 (*Fri.*).—Institution of Locomotive Engineers, annual luncheon at the Dorchester Hotel, London, W.1, at 1 p.m. Chairman, Mr. Cyril Williams, President of the Institution.

March 17 (*Fri.*).—Institution of Railway Signal Engineers, at the Institution of Electrical Engineers, Savoy Place, London, W.C.2, at 6 p.m. Annual general meeting.

March 17 (*Fri.*).—Institute of Transport annual dinner at the Connaught Rooms, Great Queen Street, London, W.C.2, at 6.45 for 7.15 p.m.

March 17 (*Fri.*).—Institution of Mechanical Engineers, Storey's Gate, London, S.W.1, at 5.30 p.m. Annual general meeting.

March 17 (*Fri.*).—Institution of Railway Signal Engineers, at the London Transport Executive Signal School, Earls Court Station, at 6.15 p.m. "Typical Signal Selection Circuits," by Mr. J. P. Loosemore.

March 18 (*Sat.*).—Permanent Way Institution, Manchester & Liverpool Section, in the Municipal College of Technology, Sackville Street, Manchester, at 2.30 p.m. "Out-of-Gauge Loads, North Eastern Region," by Mr. H. S. Wood.

March 18 (*Sat.*).—British Railways, Southern Region, Lecture & Debating Society. Visit to Post Office (London) Tube Railway.

March 20 (*Mon.*).—Institute of Transport, at the Jarvis Hall (R.I.B.A.), 66, Portland Place, London, W.1, at 5.45 p.m. "Progress in the Co-ordination of Road and Railway Transport in Northern Ireland," by Messrs. J. Courtney and J. W. Hutton.

March 20 (*Mon.*)—23 (*Thu.*)—Institution of Electrical Engineers, Savoy Place, London, W.C.2. Convention on Electric Railway Traction.

March 22 (*Wed.*).—Institution of Locomotive Engineers, at the Institution of Mechanical Engineers, Storey's Gate, London, S.W.1, at 5.30 p.m. Annual general meeting. "G. J. Churchward's Locomotive Development on the Great Western Railway," by Mr. K. J. Cook, Vice-President.

March 22 (*Wed.*). — British Railways, Southern Region, Lecture & Debating Society, at the Chapter House, St. Thomas' Street, London Bridge, at 5.45 p.m. "The Nyasaland and Trans-Zambesi Railways," by Mr. N. E. Norman.

March 22 (*Wed.*).—Stephenson Locomotive Society, 32, Russell Road, Kensington, London, W.14, at 6.30 p.m. "Locomotives of the London Chatham & Dover Railway," by Mr. F. C. Hambleton.

March 22 (*Wed.*).—Belfast Association of Engineers. "Building and Repair of Locomotives," by Mr. M. A. Henstock.

March 23 (*Thu.*).—Institution of Railway Signal Engineers, at Hunts Bank, Manchester, at 6.45 p.m. "Typical Signal Selection Circuits," by Mr. J. P. Loosemore.

Railway Stock Market

British Funds, after receding further, were inclined to respond strongly to a little investment support, but industrial shares were very undecided. In many instances business was scarcely sufficient to test quotations; and in the few cases where dividend increases have been announced, share prices failed to respond. The City is expecting that sooner or later the Chancellor of the Exchequer will make a further appeal for dividend limitation, despite indications that many companies may soon be compelled to reduce their distributions.

It is felt in the City that in the changing conditions it is only fair to investors to permit companies that can pay more to do so, and that business in stock markets is hardly likely to improve to any extent until after the budget. There is unlikely to be any material reduction in taxation; but after the budget the general position will be somewhat more clearly defined. If the Government survives the budget, it may well stay in office until the autumn and there may be less political uncertainty.

In foreign rails prices generally were inclined to strengthen. Leopoldina stocks remained more active with the debentures tending to improve on the assumption that the share-out plan for the various stocks will show the debentures well undervalued at current market prices. The 6½ per cent. debentures were favoured and advanced to 132. The 4 per cent. debentures were 93½, the preference stock 26½, and the ordinary stock 9½. Elsewhere, Leopoldina Terminal ordinary units were 2s. 7½d. and the 5 per cent. debentures 99.

Great Western of Brazil were rather easier at 128s. 9d., though this is substantially below the pay-out level for these £10 units already estimated by the directors. Moreover, payment of the compensation money is expected to be agreed by Brazil at the same time as for Leopoldina. In other directions, San Paulo 10s. units have transferred around 13s. 7½d.

There were again minor fluctuations in United of Havana stocks awaiting official news from Cuba; the 1906 debentures were 25½. Taltal shares rose sharply to 18s. on market estimates that the break-up value of the shares is well in excess of 20s. Antofagasta issues were also more active with the preference at 47 and ordinary stock at 9¼. Nitrate Rails shares were quoted at 73s. 9d.

National Railways of Mexico 4½ per cent. assented bonds were 25½. Manila "A" debentures and 5 per cent. preference were 82 and 8s. respectively. Dorada Rails marked 69½, and Guayaquil & Quito 5 per cent. first bonds 26½.

There was again activity in White Pass Yukon, the 5 per cent. consolidated debentures being 178½ and the 6 per cent. income debentures 72. Canadian Pacifics at 27 turned easier, taking their cue from the general trend in dollar stocks earlier in the week.

Great Southern of Spain first debenture stock was called nominally 40-50 after news of the expropriation payment of £44½ per £100 of stock. Holders of the income and ordinary stocks cannot expect to receive anything; and at this stage it is impossible to estimate when and what further payment is possible on the first debentures.

Bus and road transport shares tended to be firmer on the general belief that it will be possible to maintain dividends; profits, however, in most cases will be well below the exceptionally good levels of 1948. Southdown have improved to 125s. at the time of writing; Lancashire Transport sold around 83s. 6d.; and West Riding were 65s. B.E.T. deferred stock came back to £475.

Iron and steels were again lower on balance, but have turned steadier in the hope that the good yields may bring in buyers now that it is clear there can be no more nationalisation until the whole question is settled by the next election. United Steel are now only 24s. 6d., Hadfields 25s. 9d., but Colvilles at 33s. regained part of an earlier decline.

News of further good overseas contracts did not benefit shares of locomotive builders and engineers. Vulcans were 18s. 1½d., North British Locomotive 19s., Beyer Peacock 19s., and Gloucester Wagon 46s. 6d. Hurst Nelson were 58s. at Glasgow. English Electric shares eased to 39s. British Transport stocks again reflected the trend of the gilt-edged market. Transport 3 per cent. (1978-88) recovered to 88 after changing hands below 87¼.

Traffic Table of Overseas and Foreign Railways

	Railways	Miles open	Week ended	Traffics for week: Total this year	Traffics for week: Inc. or dec. compared with 1947/48	No. of week	Aggregate traffics to date: Total 1948/49	Aggregate traffics to date: Increase or decrease
South & Central America	Antofagasta... ...	811	5.3.50	£ 61,870	+ £ 5,000	9	£ 600,024	+ £ 7,580
	Costa Rica	281	Jan., 1950	c763,908	— c250,228	31	c5,919,770	— c1,167,985
	Dorada	70	Jan., 1950	38,097	+ 6,448	4	38,097	+ 6,448
	Inter. Ctl. Amer. ...	794	Jan., 1950	$1,286,636	+ $196,834	4	$1,286,636	+ $196,834
	La Guaira	22½	Feb., 1950	$78,787	— $26,912	8	$157,349	— $58,645
	Nitrate	382	28.2.50	17,227	— 990	8	84,720	+ 19,364
	Paraguay Cent. ...	274	3.3.50	₲131,749	+ ₲42,560	35	₲4,968,917	+ ₲1,299,573
	Peru Corp. ...	1,050	Jan., 1950	$6,454,700	+ $1,906,457	31	$40,250,658	+ $13,154,984
	,, (Bolivian Section)	66	Jan., 1950	Bs.9,523,000	+ Bs.838,649	31	Bs.72,392,164	+ Bs.11,811,706
	Salvador	100	Dec., 1949	c278,000	+ c11,000	26	c730,000	— c46,000
	Taltal	154	Feb., 1950	12,890	+ 1,295	35	103,045	+ 34,115
Canada	Canadian National†	23,473	Jan., 1950	11,680,000	— 756,000	4	11,680,000	— 756,000
	Canadian Pacific† ...	17,037	Jan., 1950	9,256,000	— 1,075,000	4	9,256,000	— 1,075,000
Various	Barsi Light* ...	167	Jan., 1950	31,237	+ 2,647	44	298,770	+ 22,522
	Egyptian Delta ...	607	31.1.50	21,313	+ 1,295	44	573,627	— 43,372
	Gold Coast ...	536	Jan., 1950	132,620	— 111,046	44	2,313,799	+ 169,763
	Mid. of W. Australia	277	Dec., 1949	35,317	+ 3,212	26	177,156	+ 1,307
	Nigeria	1,900	Dec., 1949	625,316	+ 53,236	39	4,515,454	+ 254,329
	South Africa ...	13,347	18.2.50	1,389,839	+ 17,272	46	68,263,932	+ 5,187,430
	Victoria	4,744	Nov., 1949	1,877,684	+ 416,841	22	—	—

* Receipts are calculated @ 1s. 6d. to the rupee

† Calculated at $3 to £1